

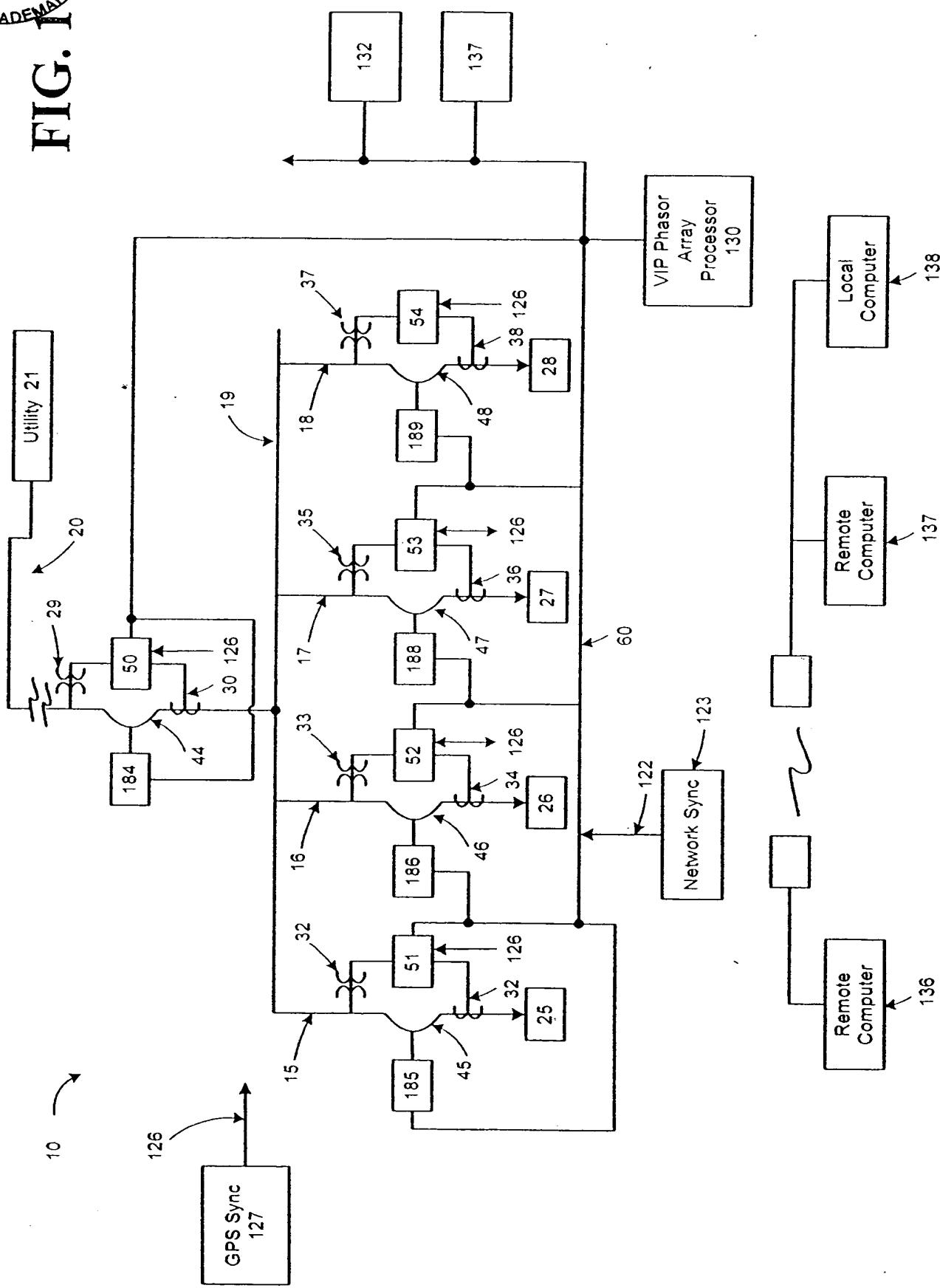


Patent Application For: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart  
Attorney Docket No.: 6270/76

1 of 207

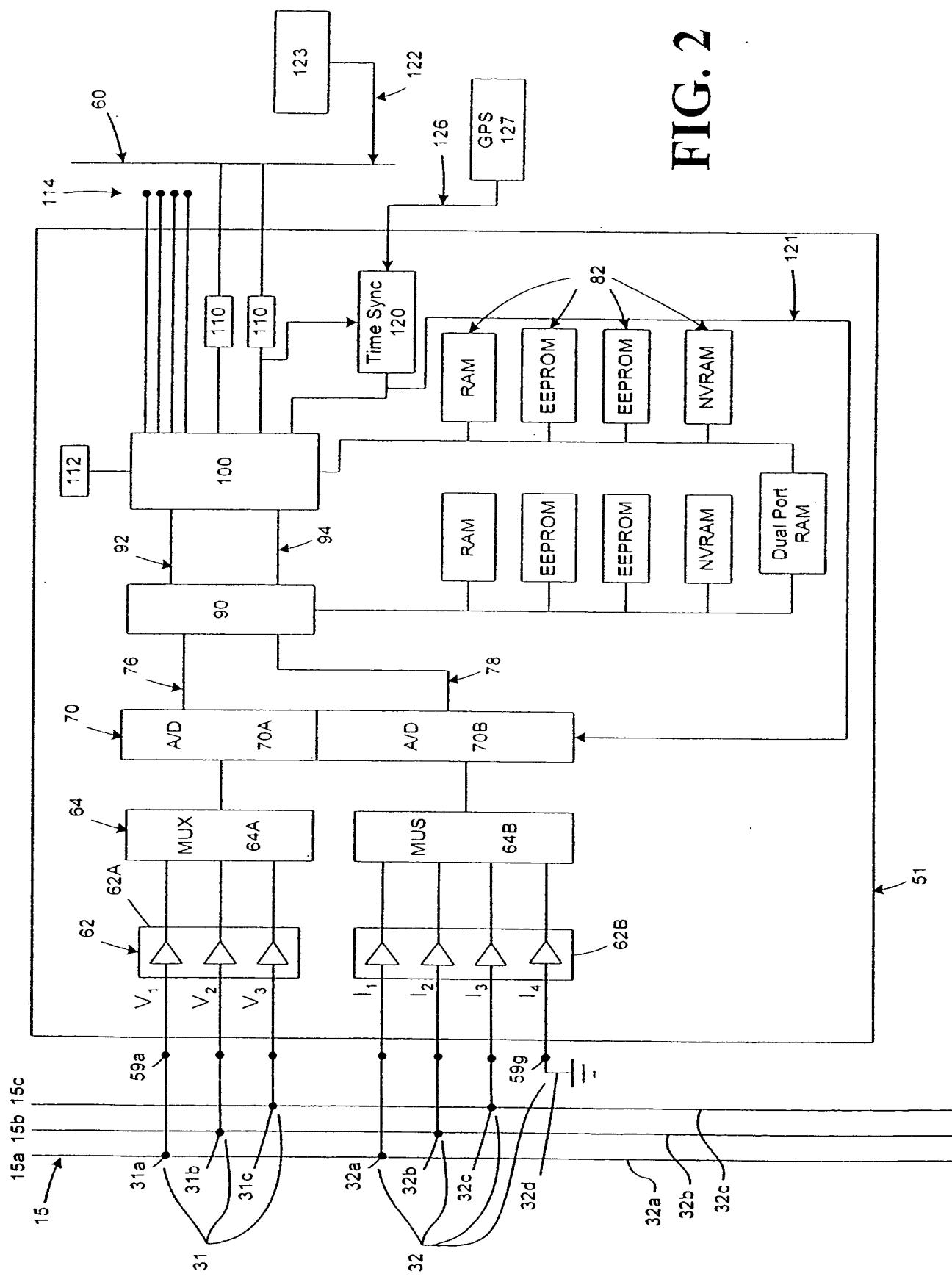
EIG.



Inventor(s): Ronald G. Hart  
Attorney Docket No.: 6270/76

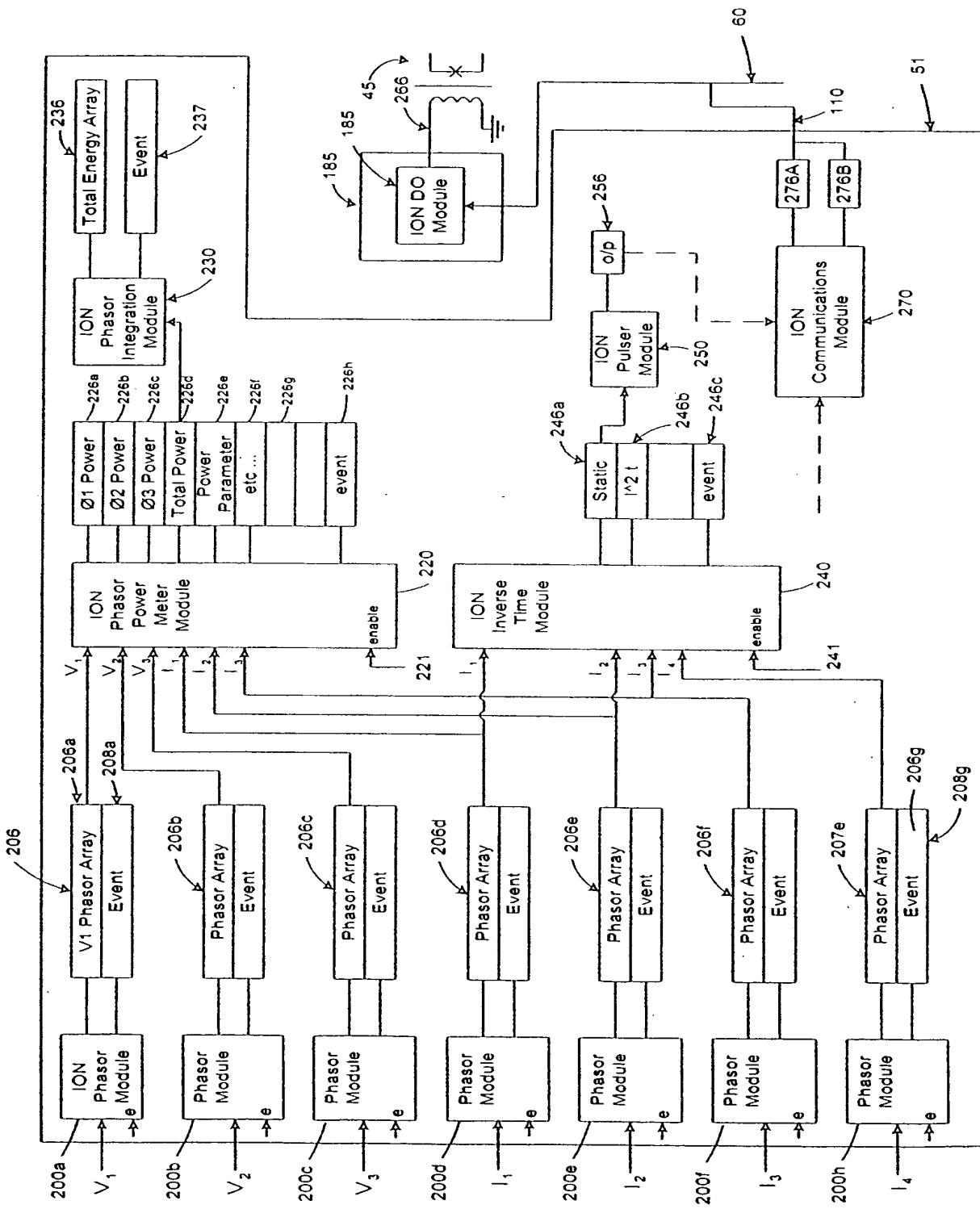
2 of 207

FIG. 2



**Inventor(s): Ronald G. Hart**  
**Attorney Docket No.: 6270786**

3 of 207



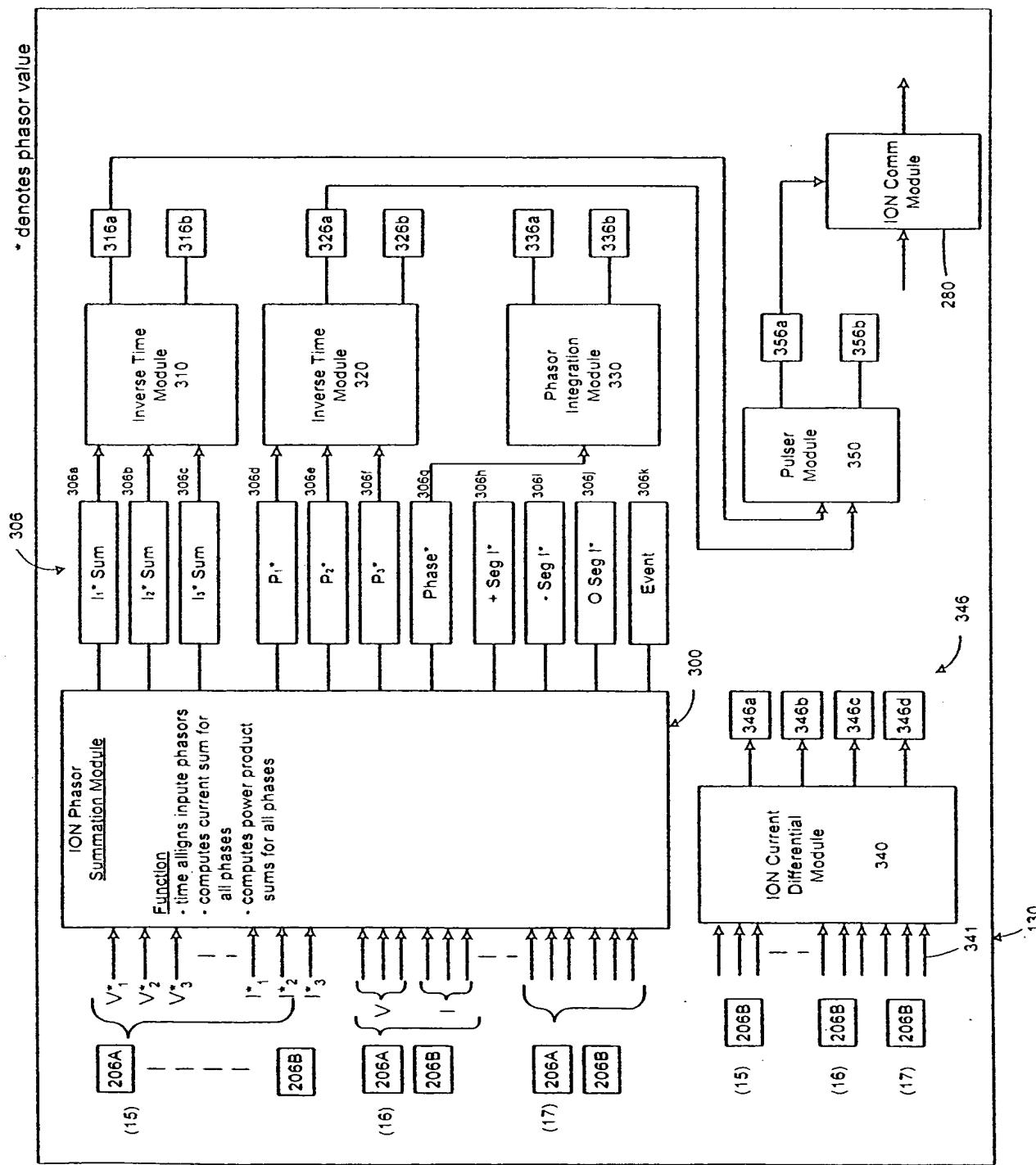
## Phasian ON Moudle Diagram

Patent Application For: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart  
Attorney Docket No.: 6270/36

4 of 207

FIG. 4

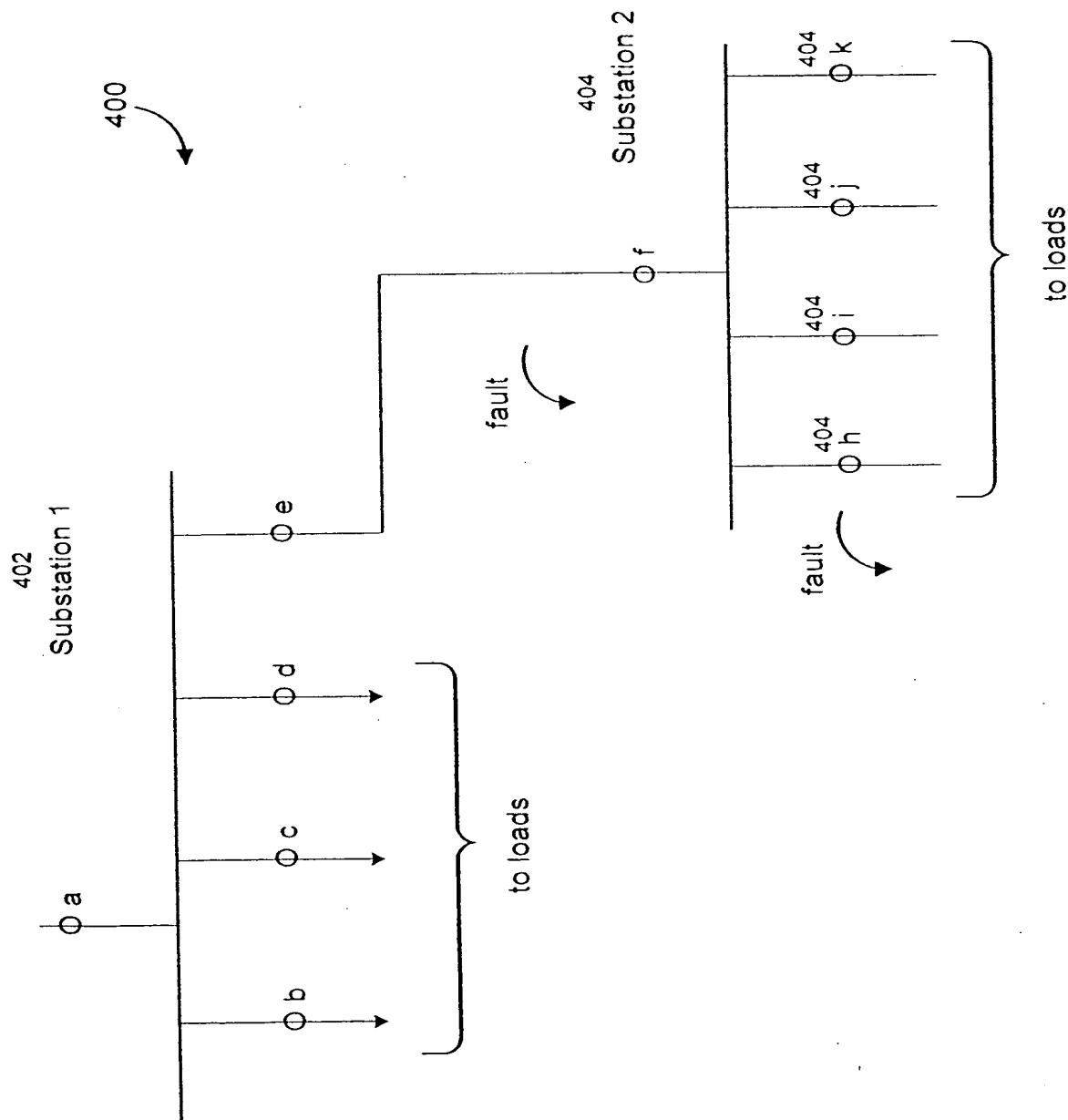


Patent Application For: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND  
MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

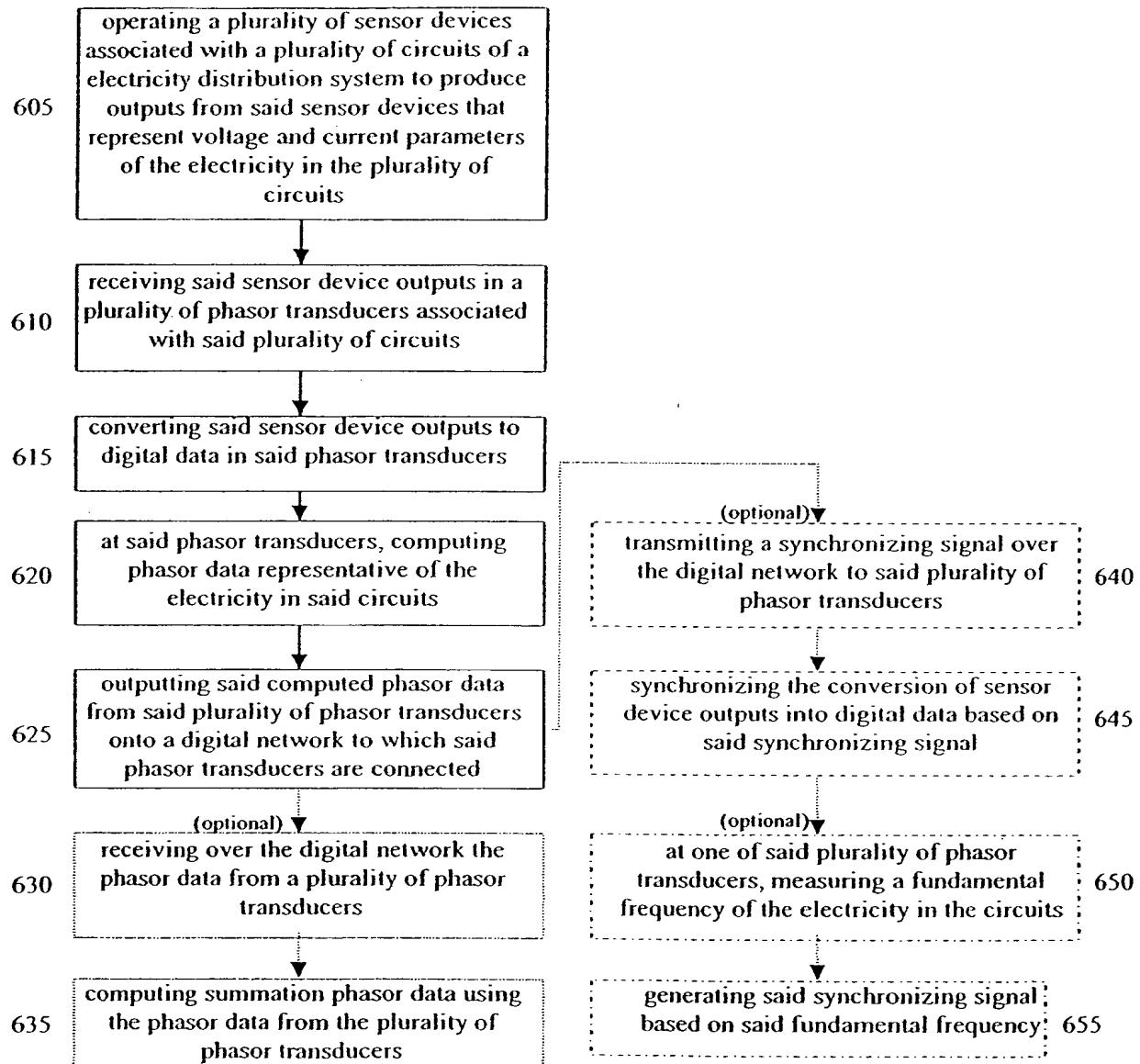
Inventor(s): Ronald G. Hart  
Attorney Docket No.: 6270/96

5 of 207

FIG. 5



## FIG. 6



**FIG. 7**

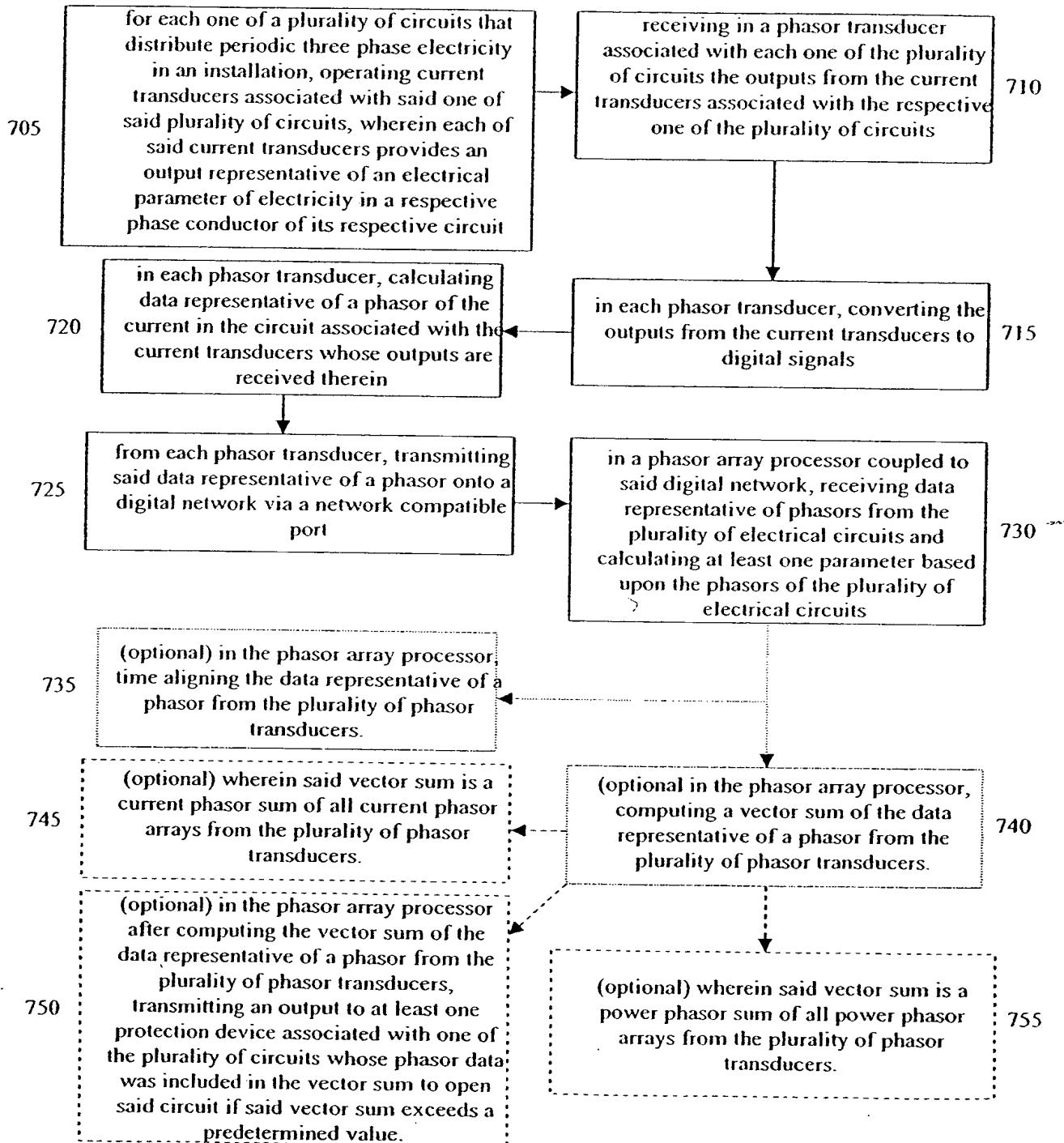
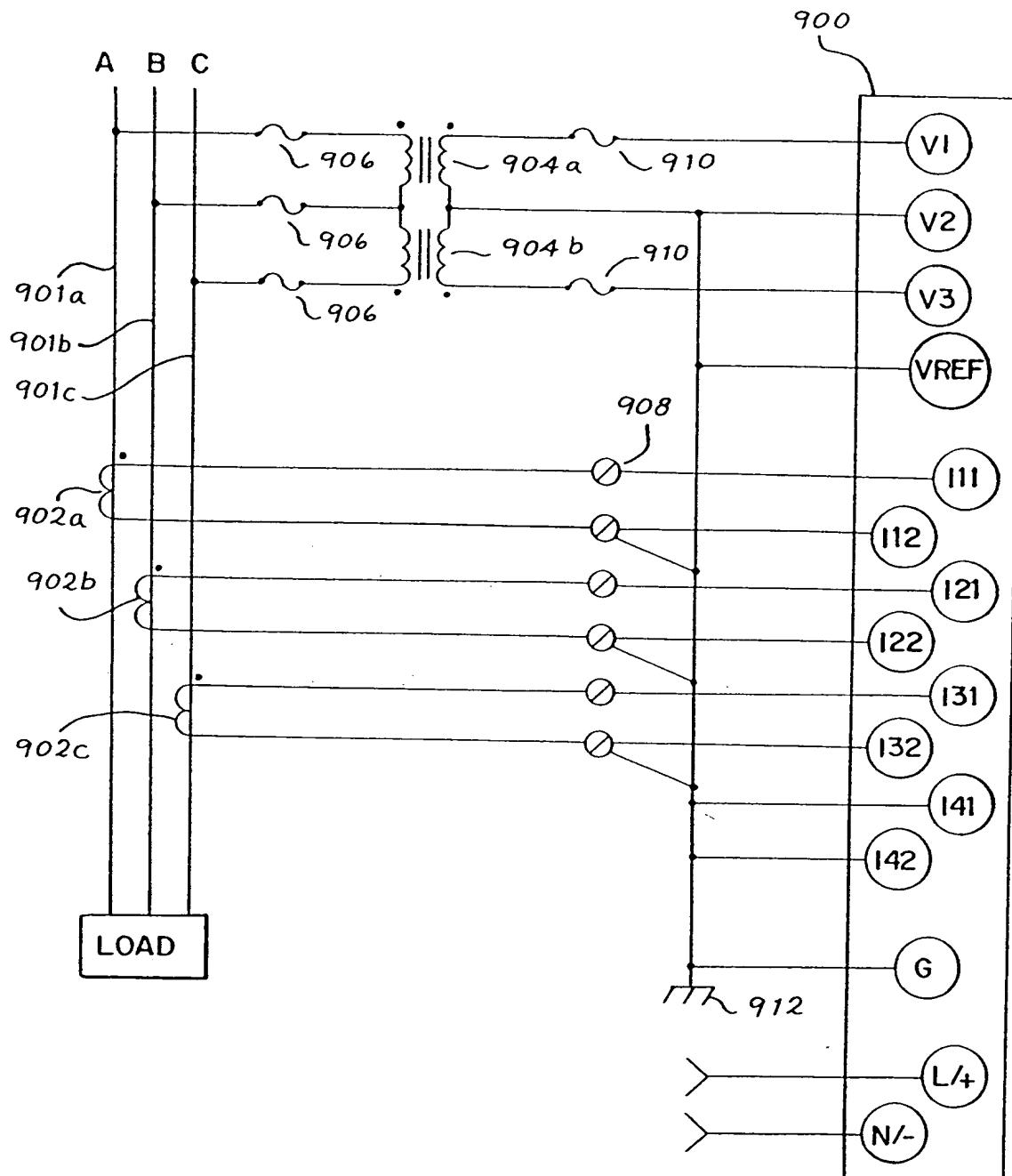


FIG. 8



9 08 2007

FIG. 9

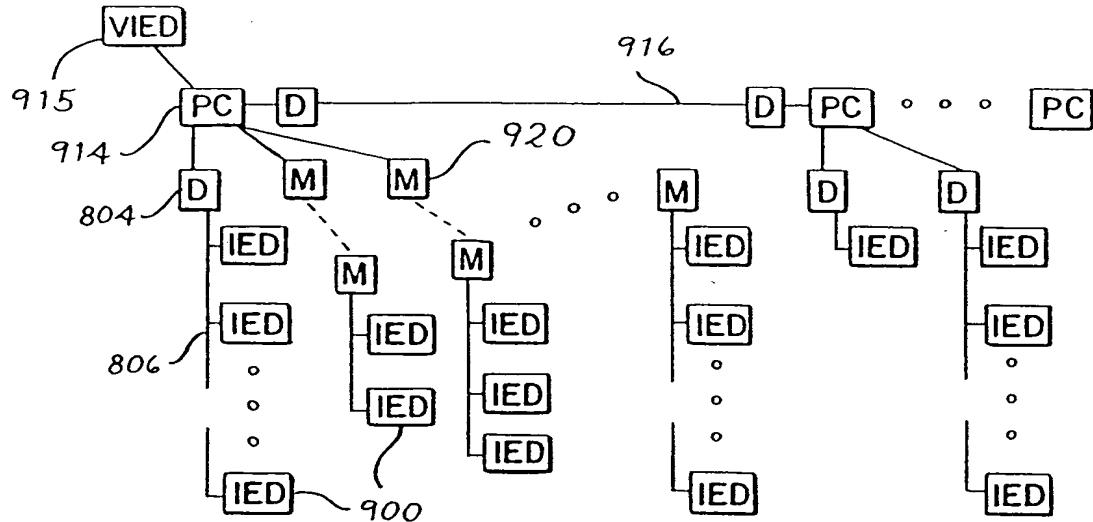


FIG. 11

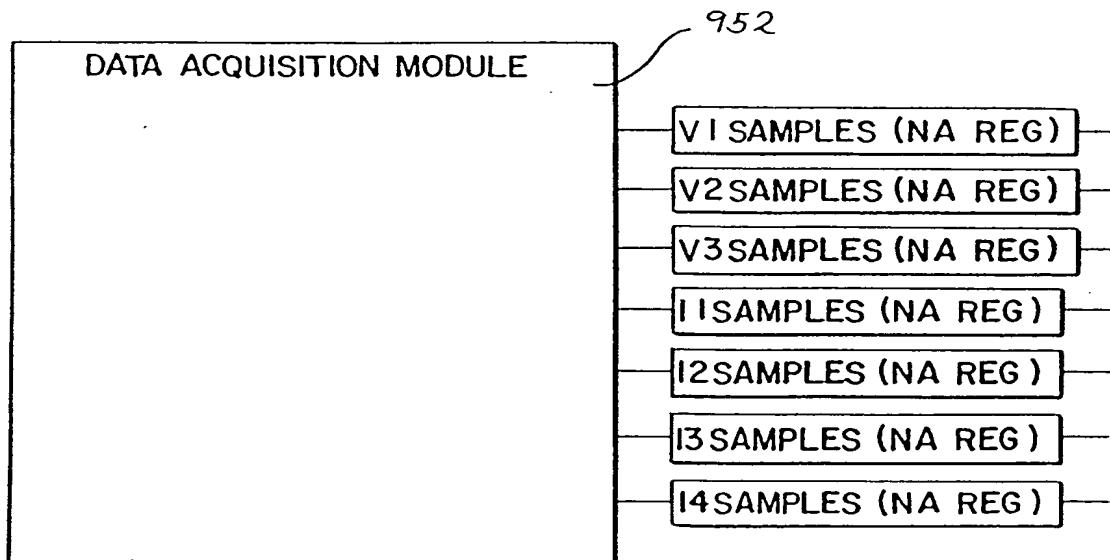
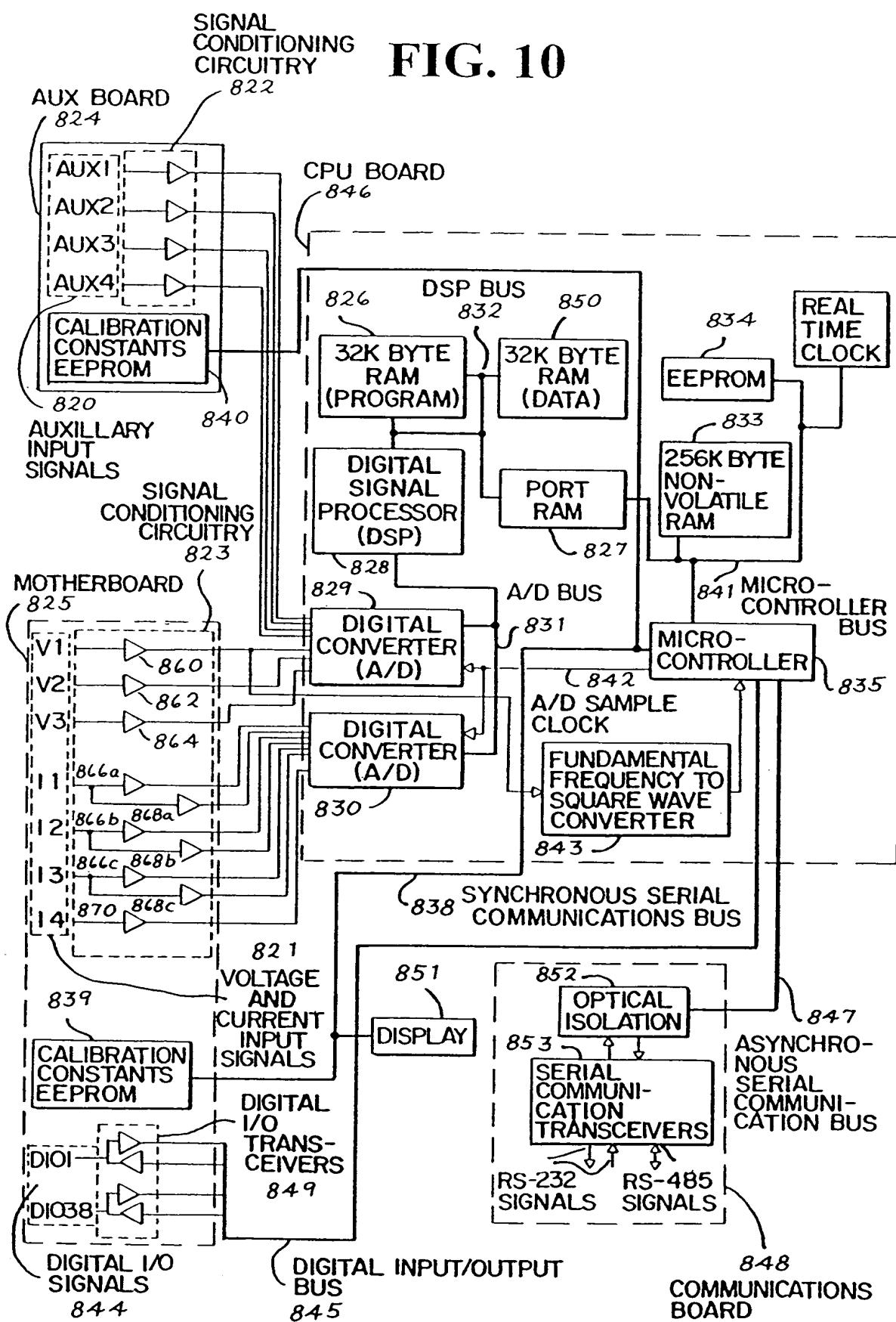


FIG. 10



11 8 207

DATA ACQUISITION  
MODULE  
OPERATION (CLIENT  
PORTION)

FIG. 11A

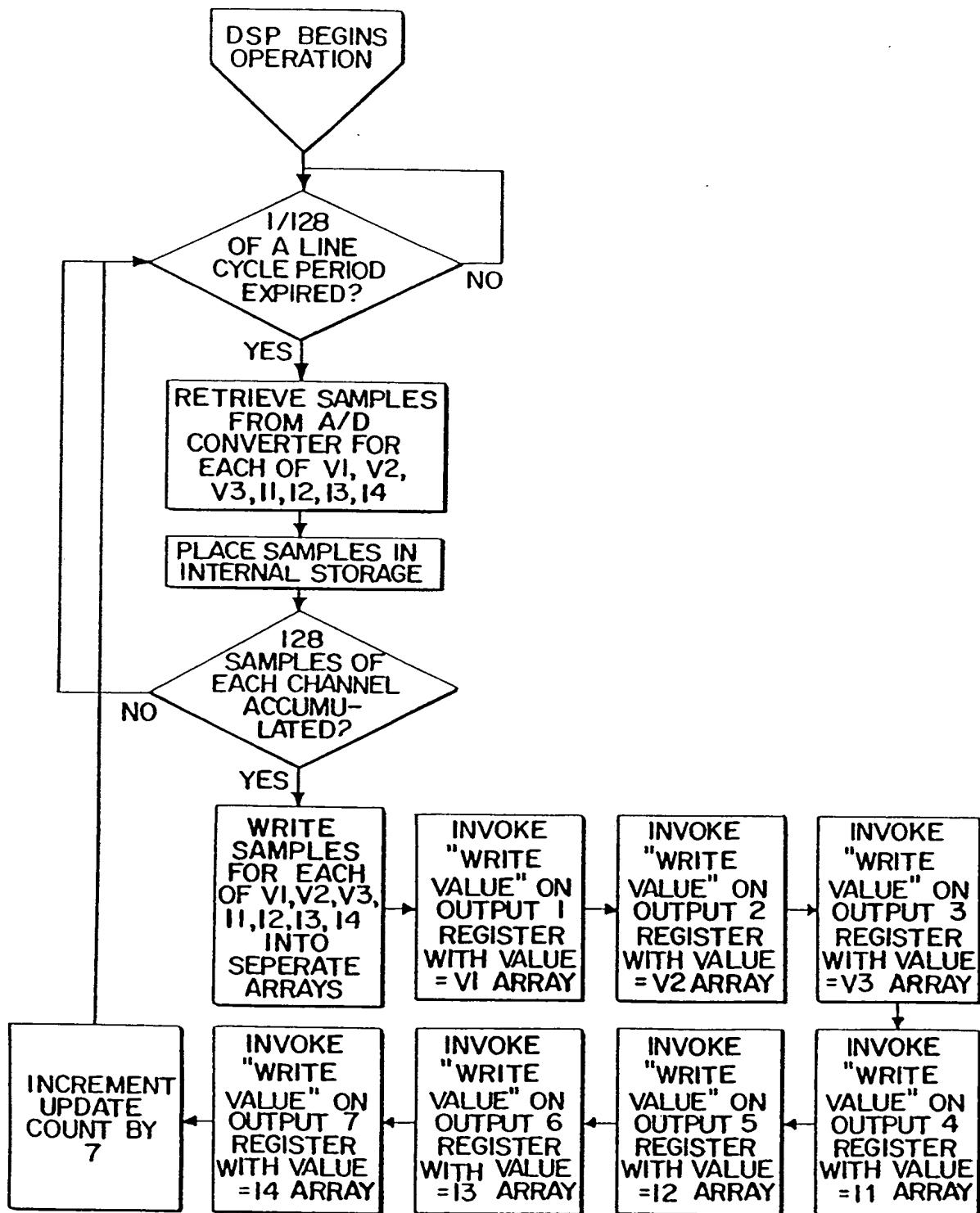


FIG. 12

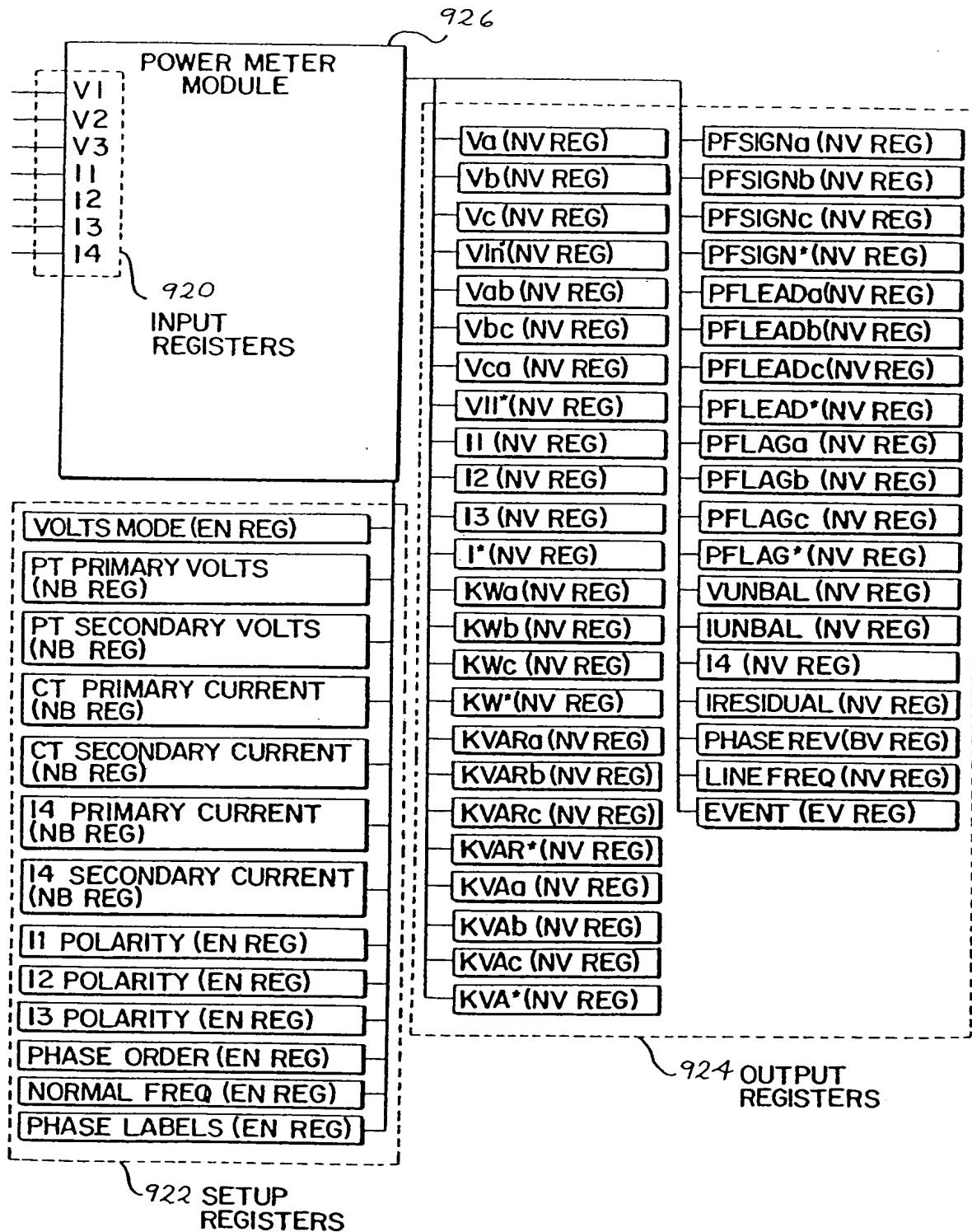
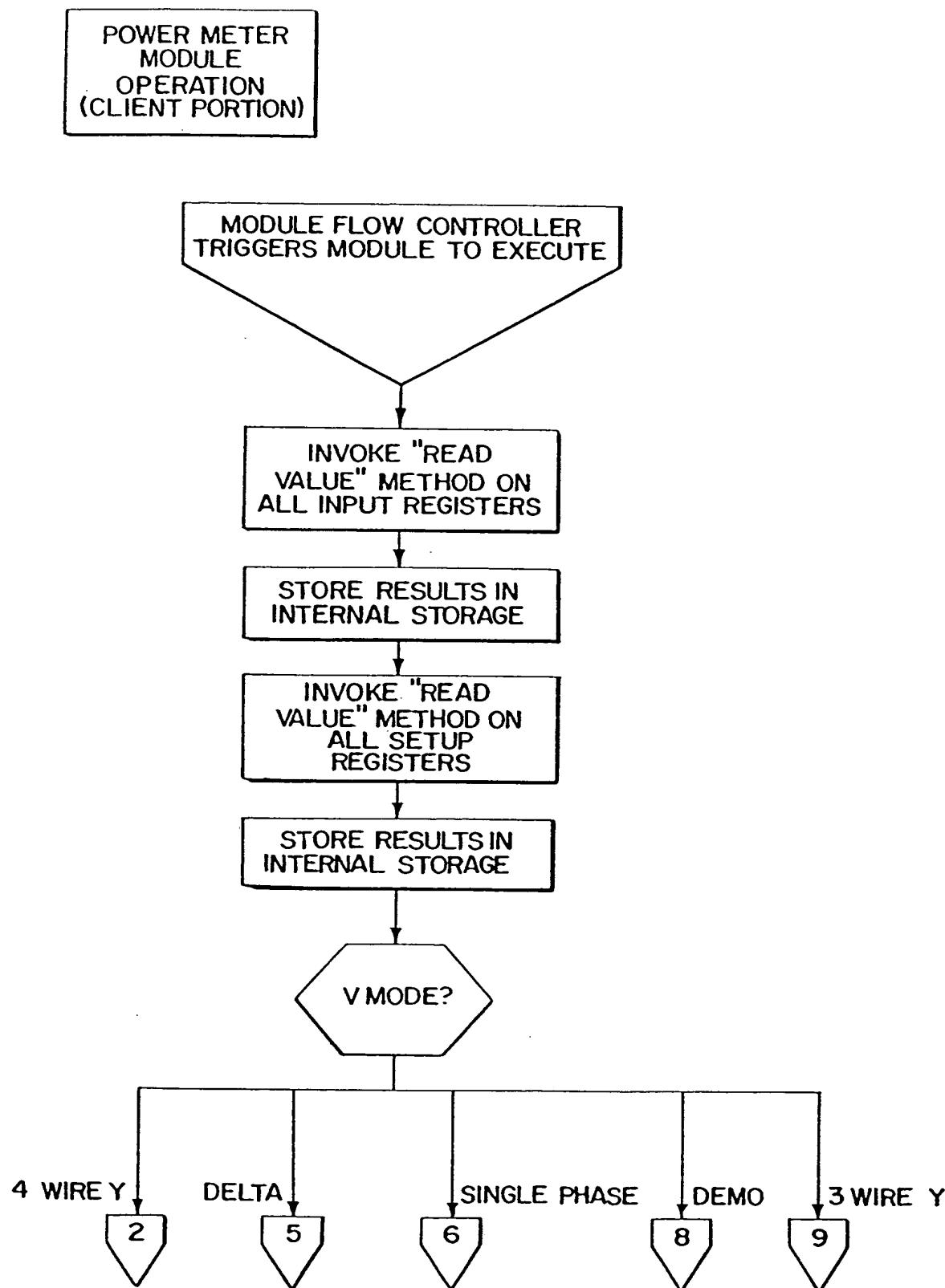


FIG. 12A



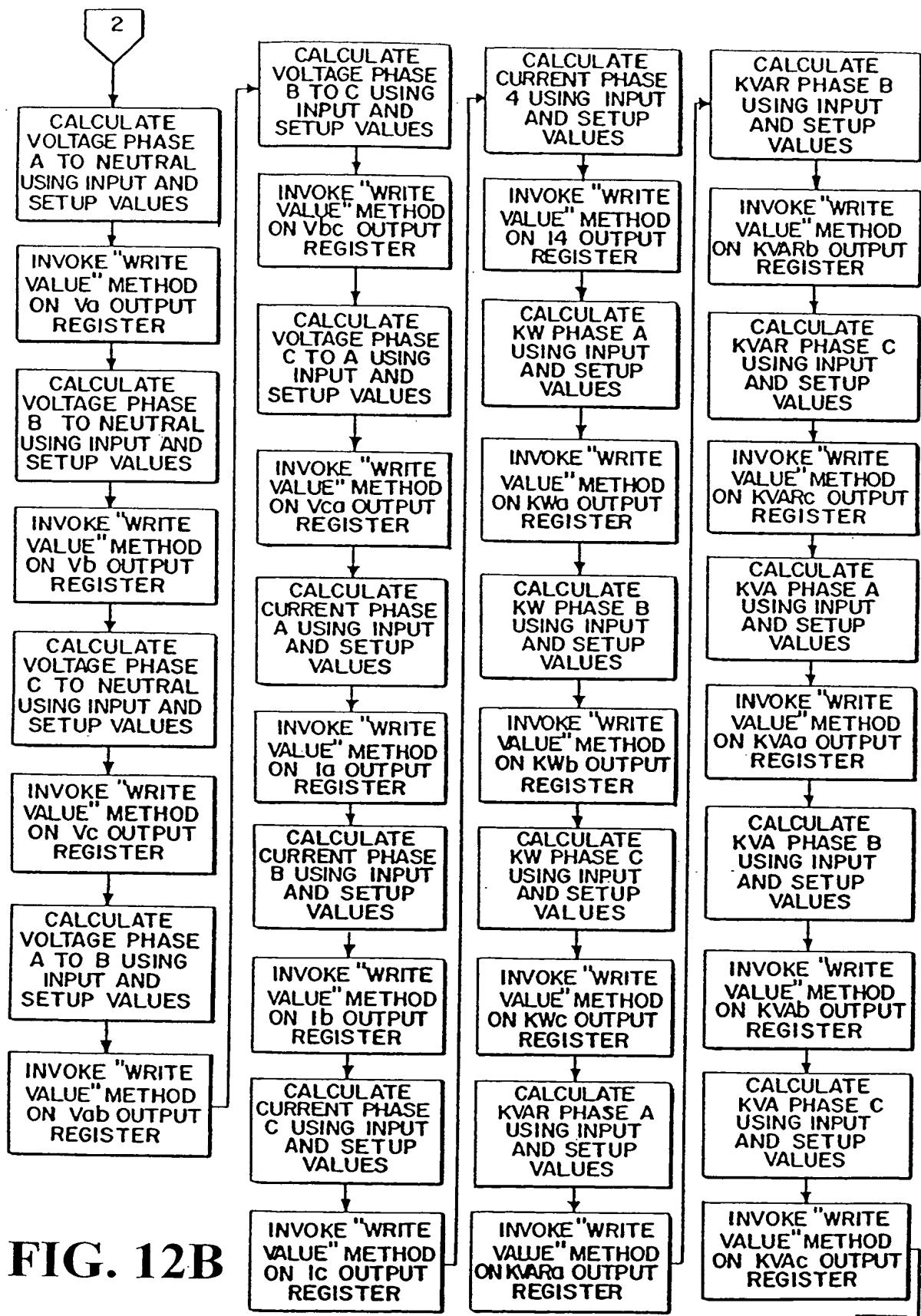


FIG. 12B

1507207

FIG. 12C

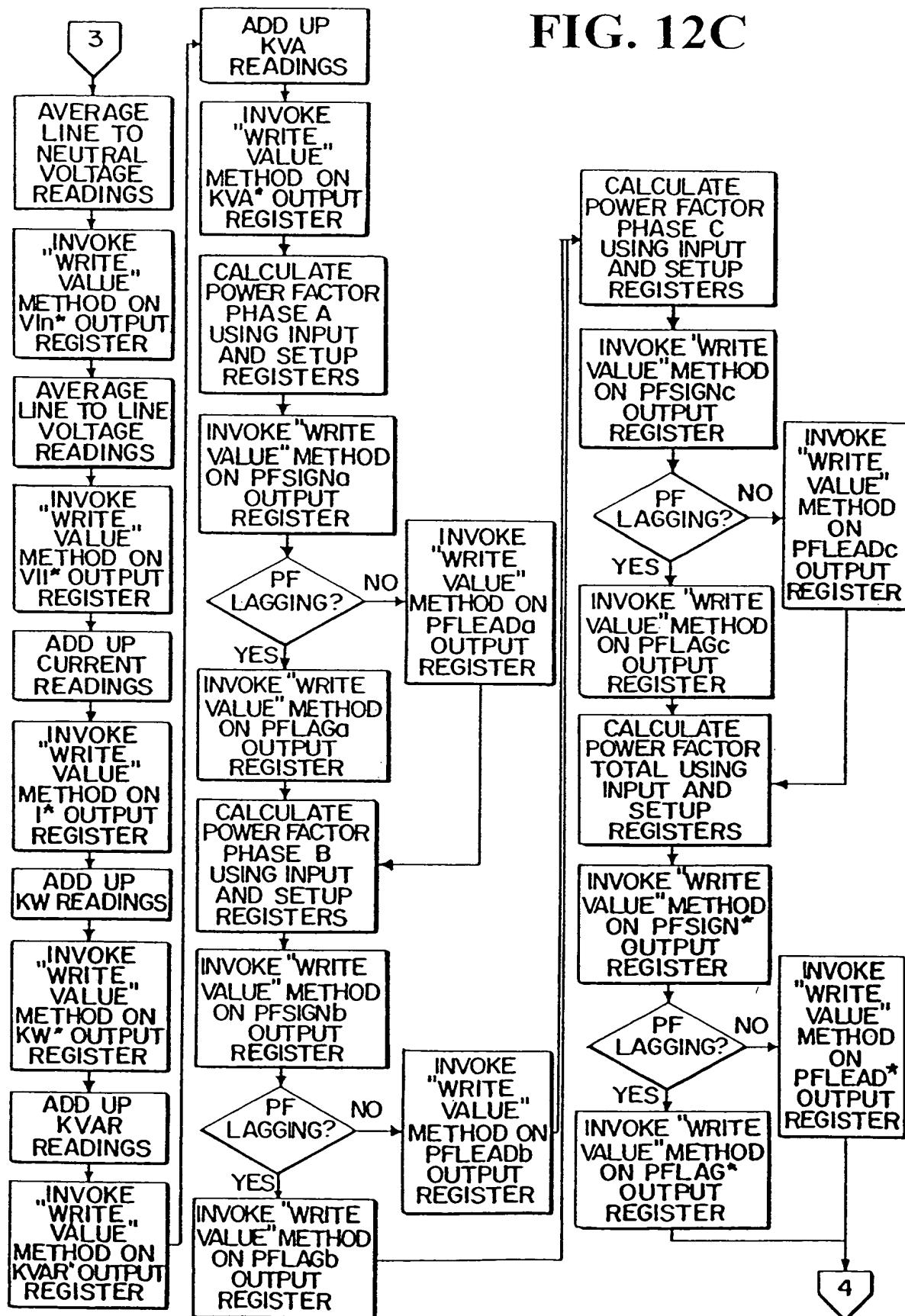


FIG. 12D

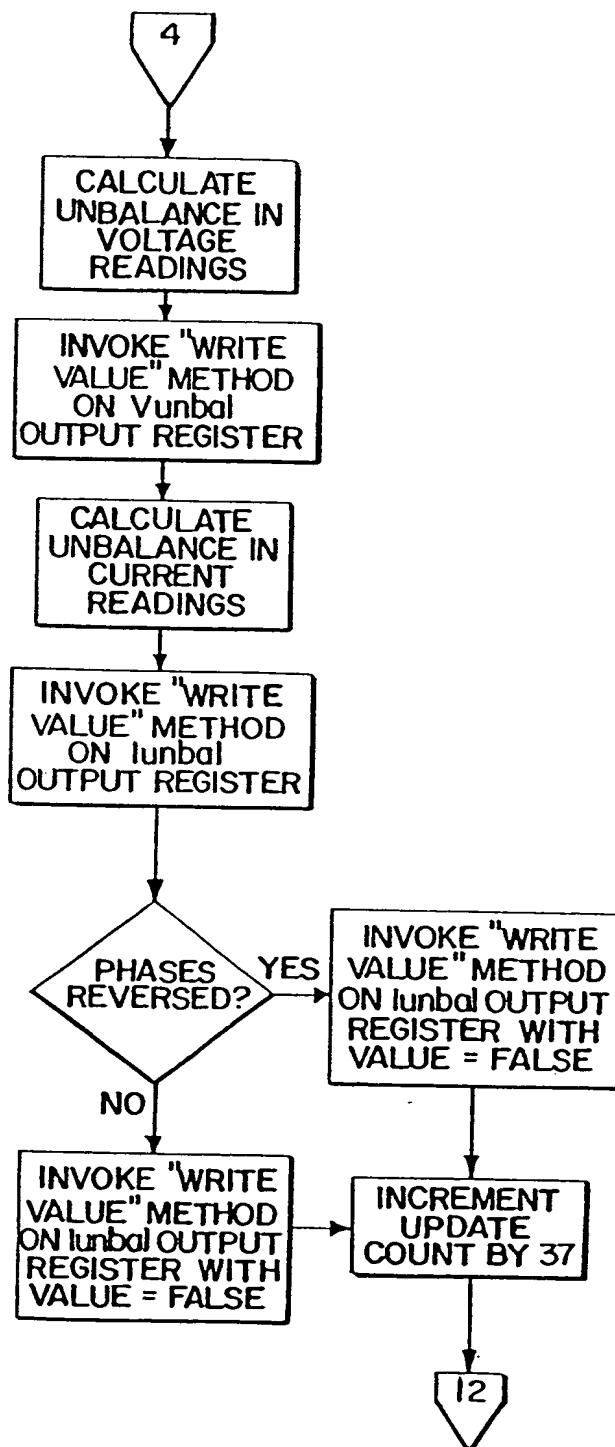


FIG. 12H

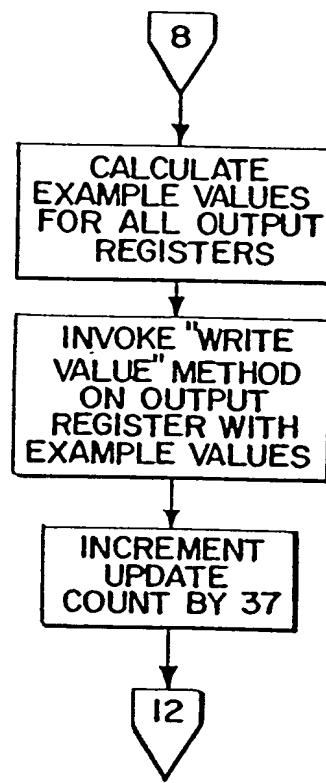


FIG. 12E

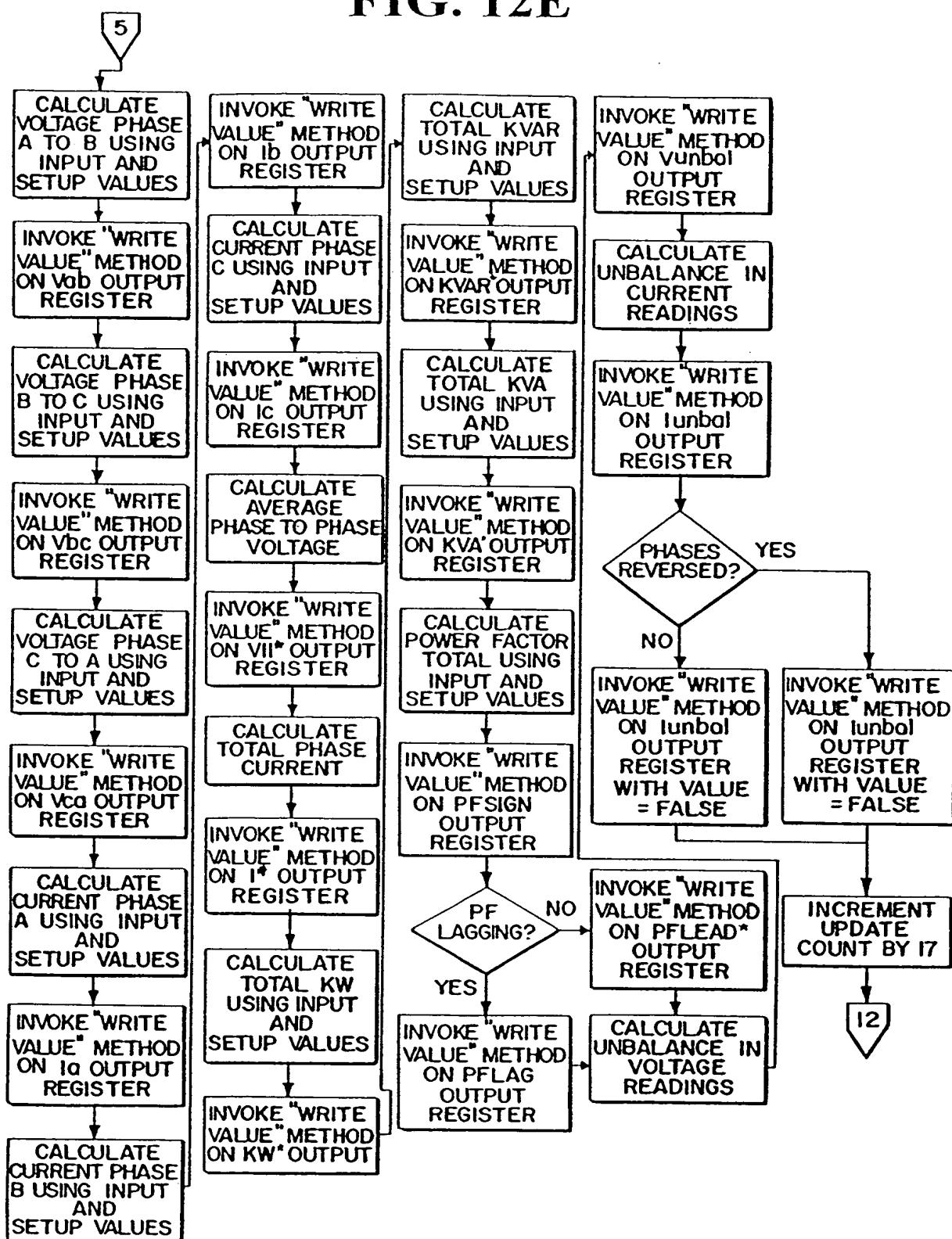


FIG. 12F

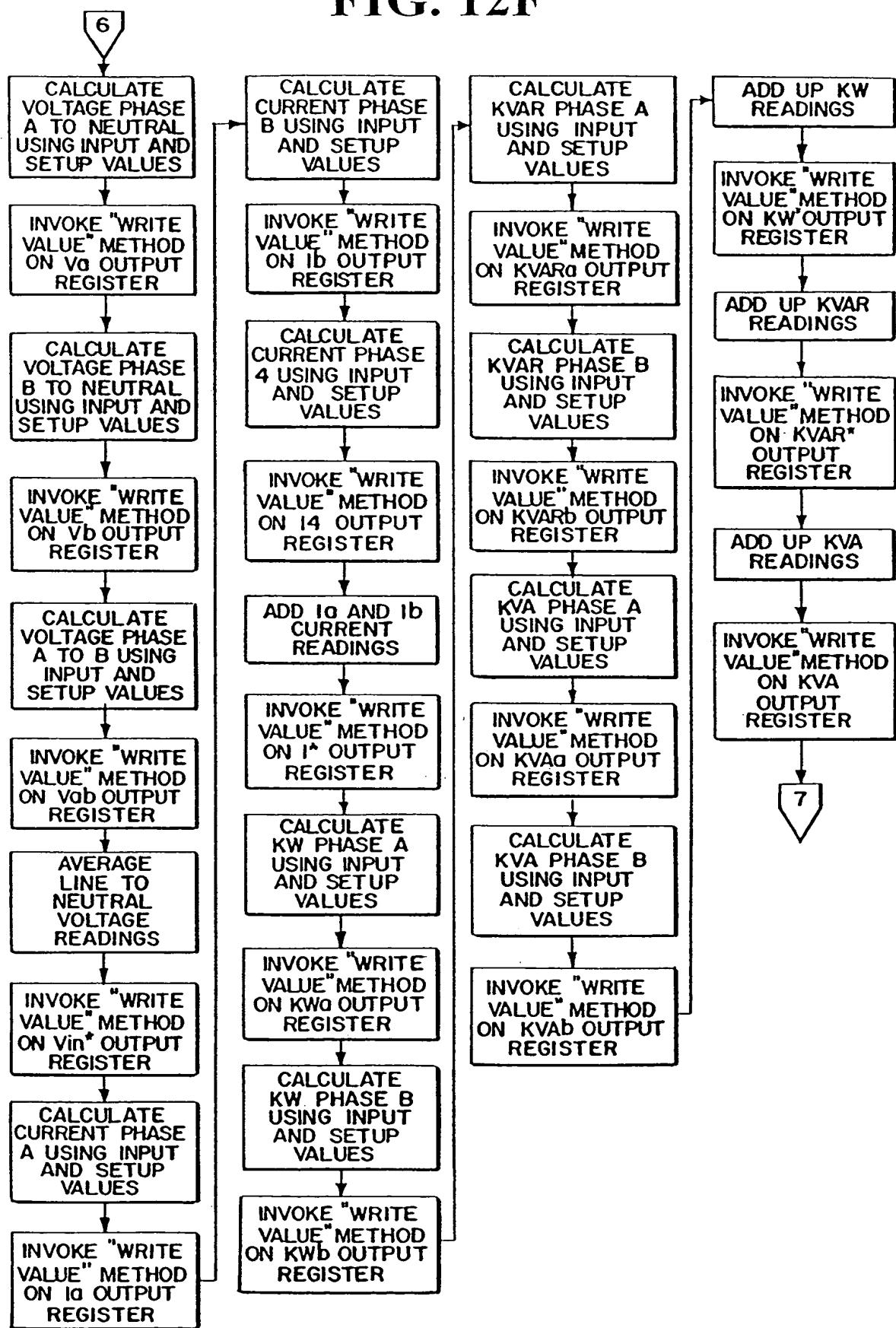
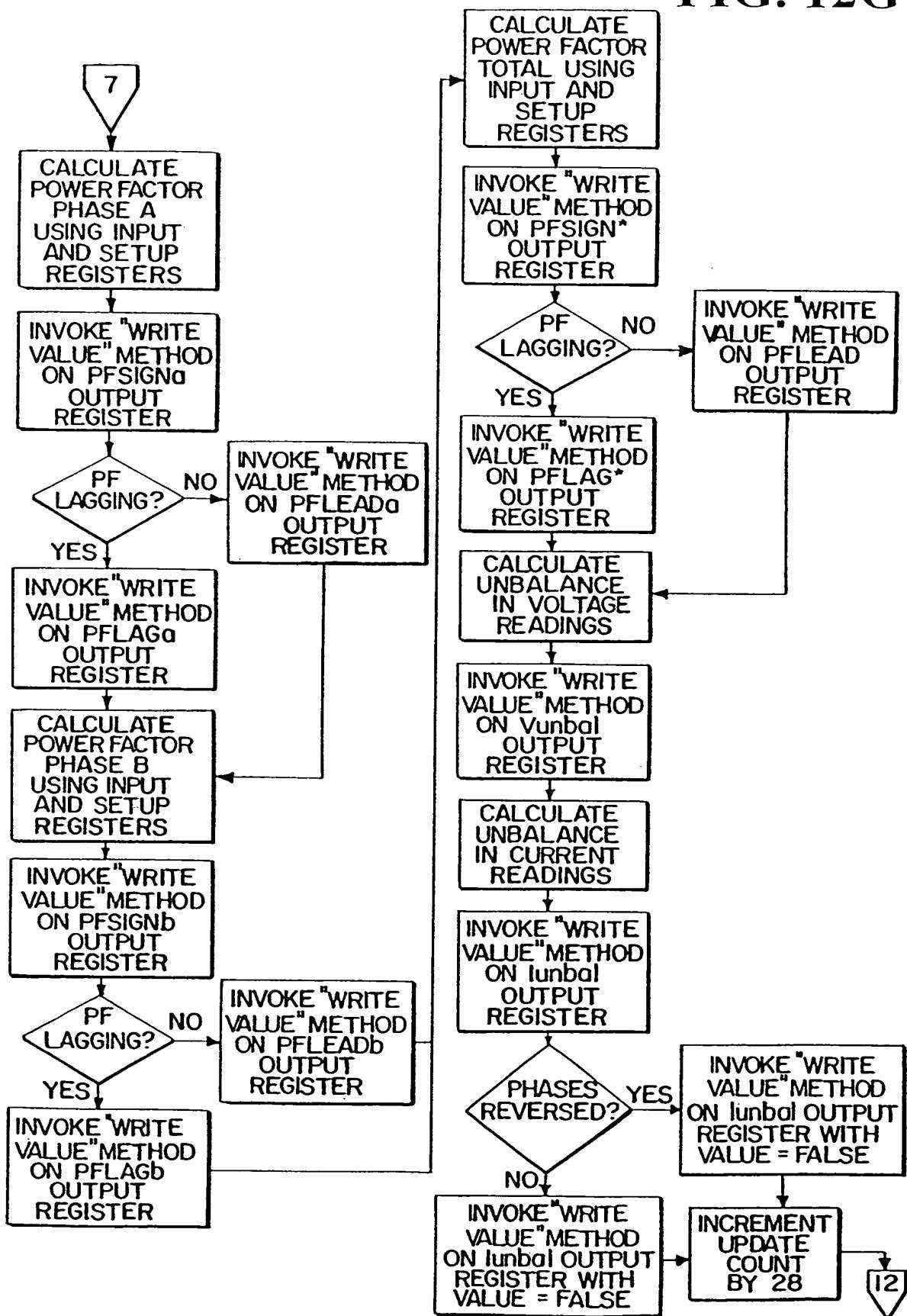


FIG. 12G



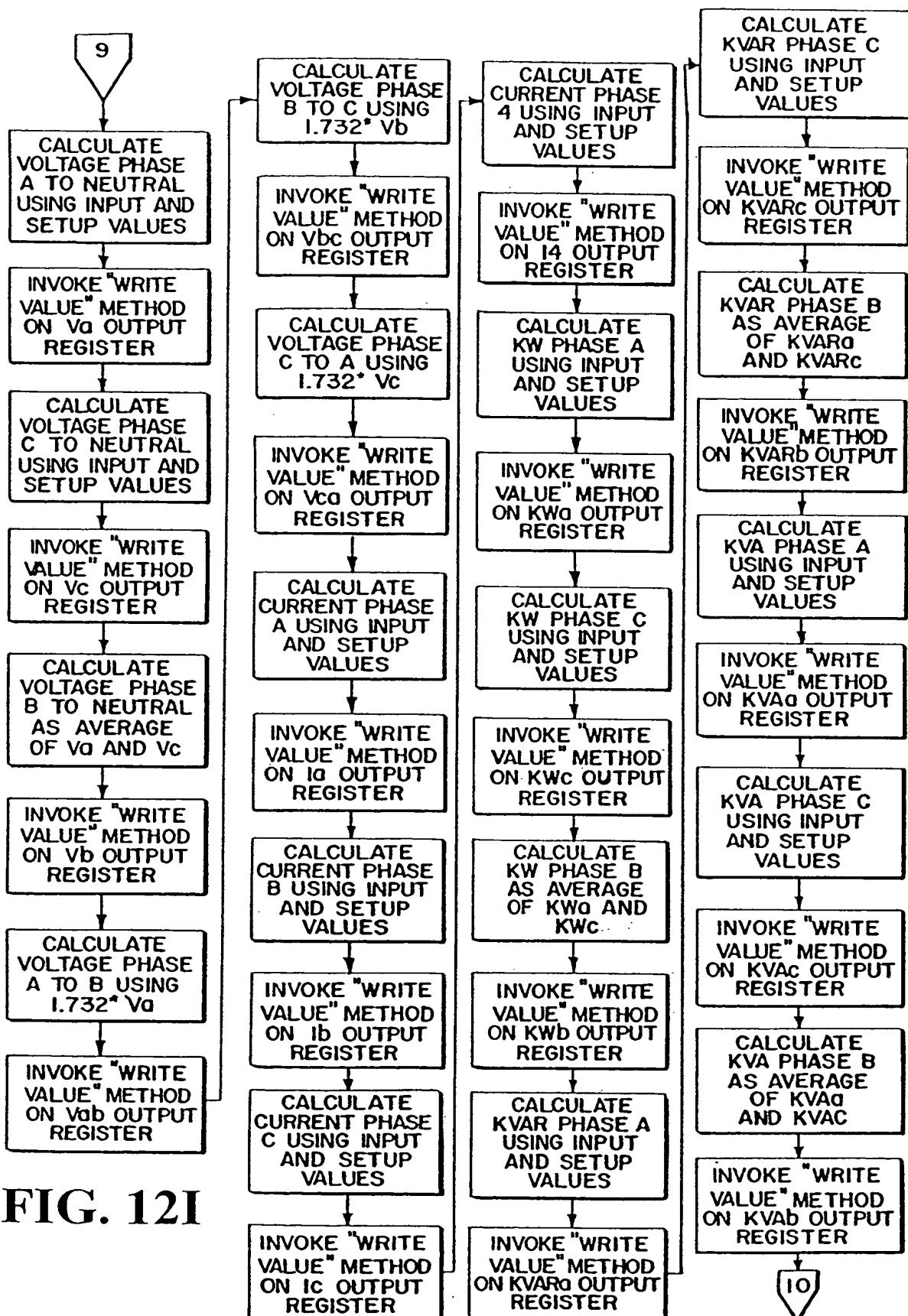


FIG. 12I

**FIG. 12J**

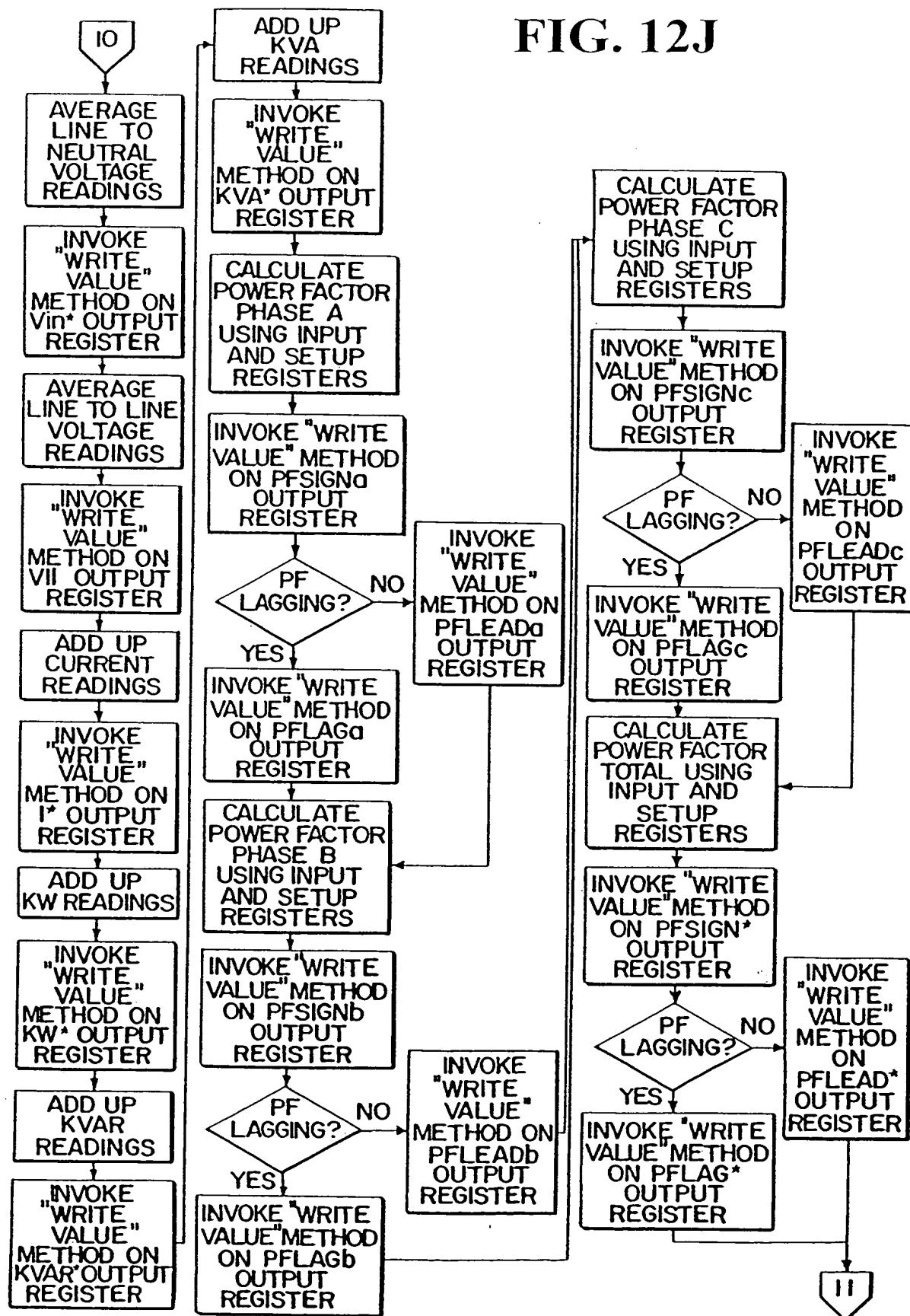


FIG. 12K

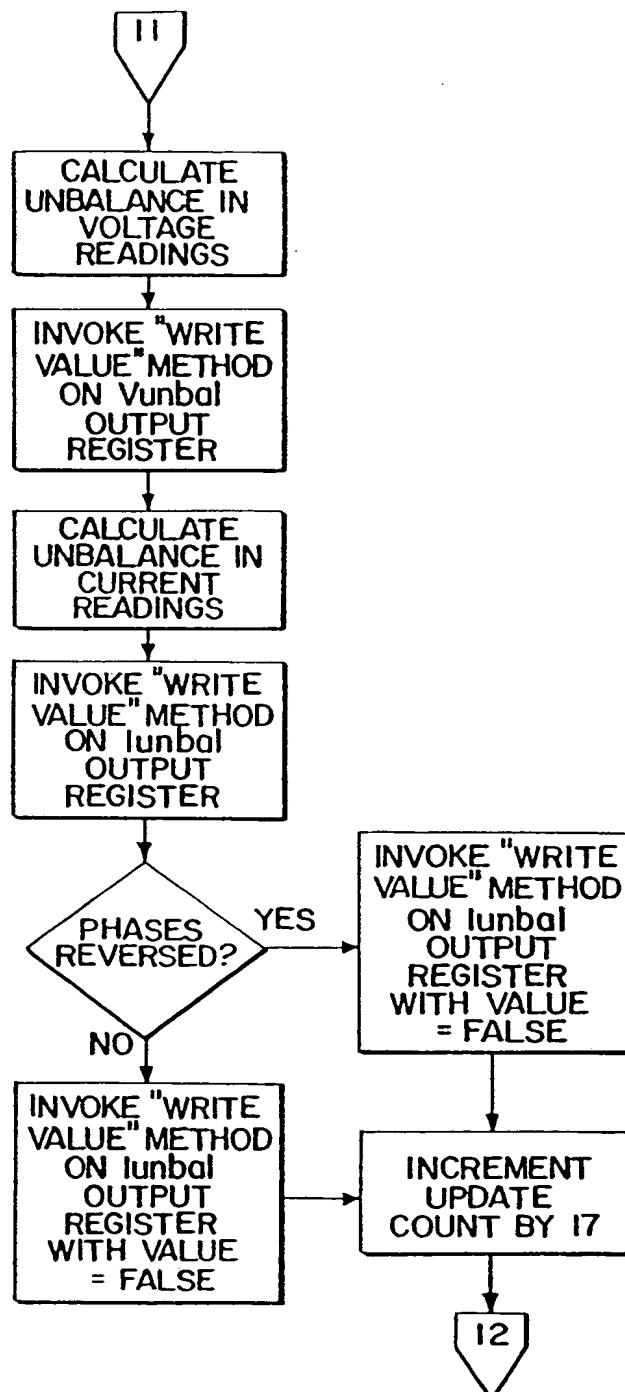


FIG. 12L

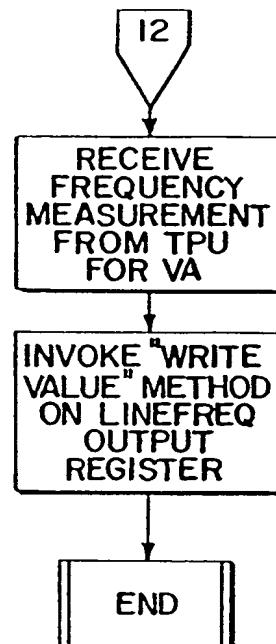


FIG. 13

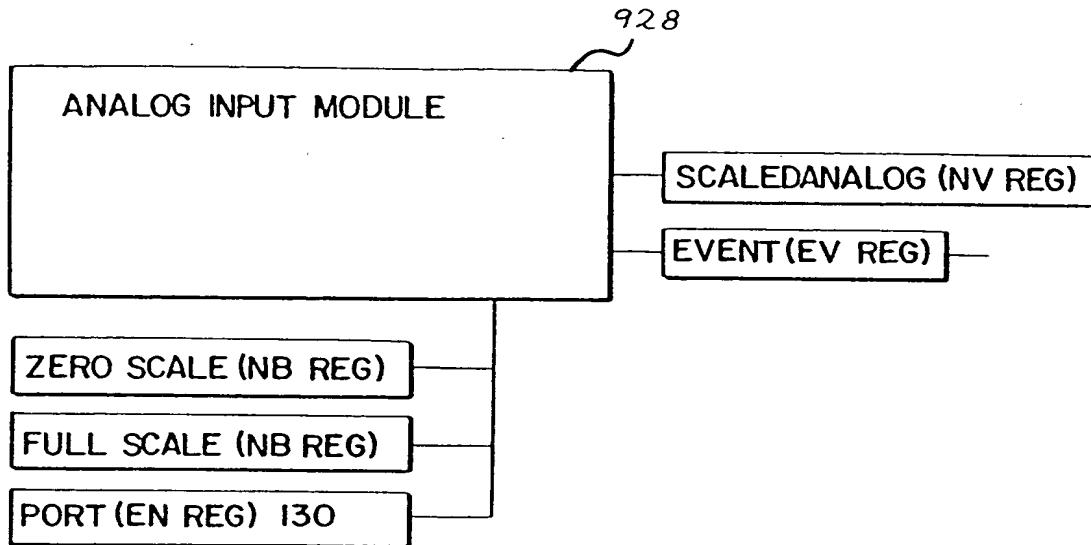


FIG. 14

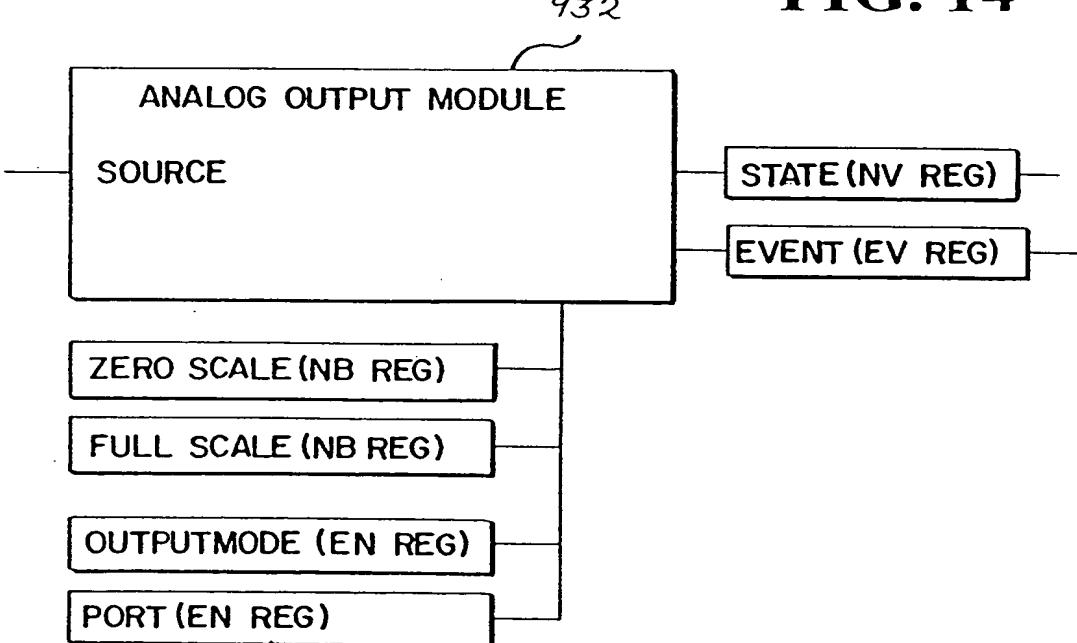
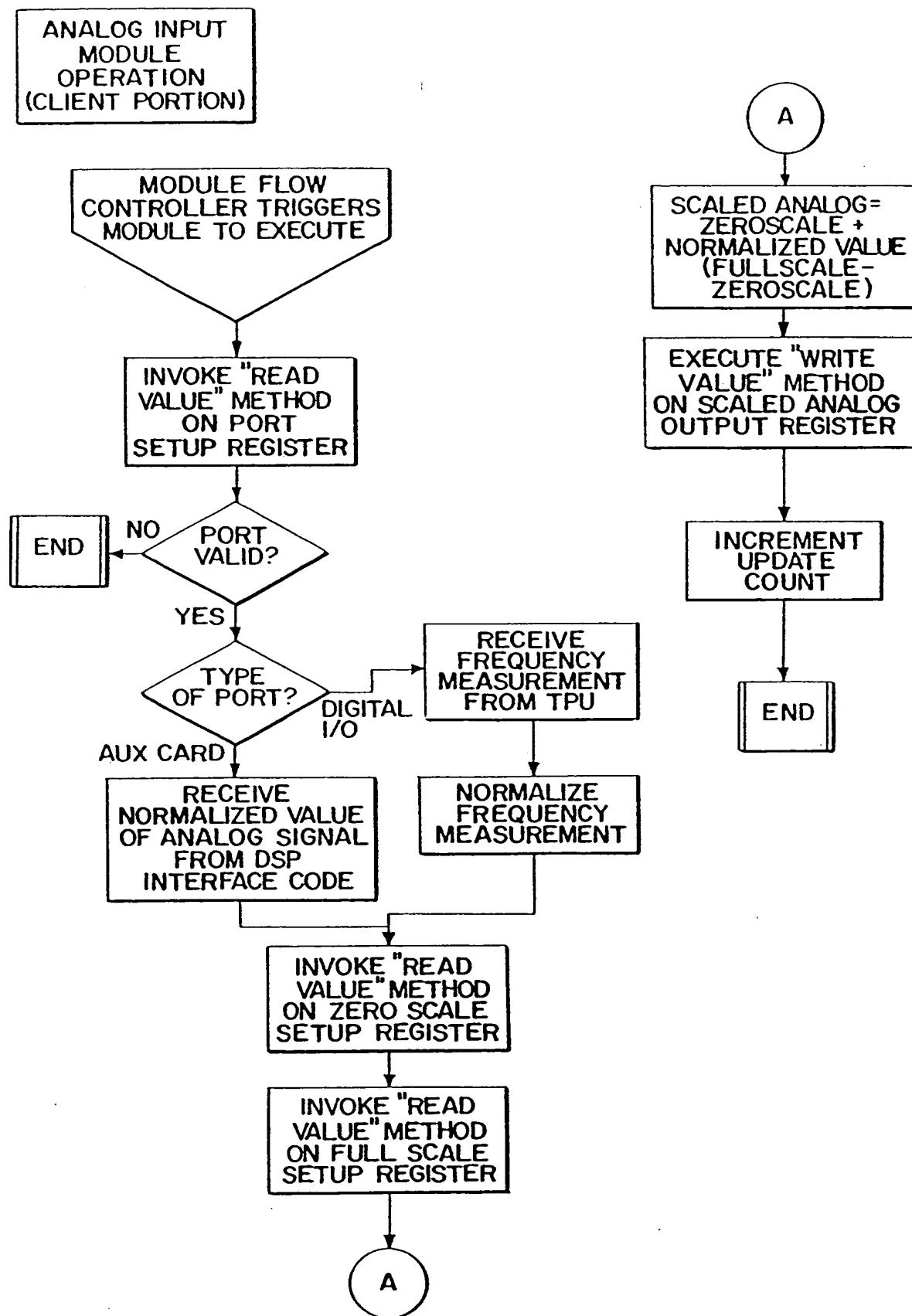


FIG. 13A



25.07.2017

FIG. 14A

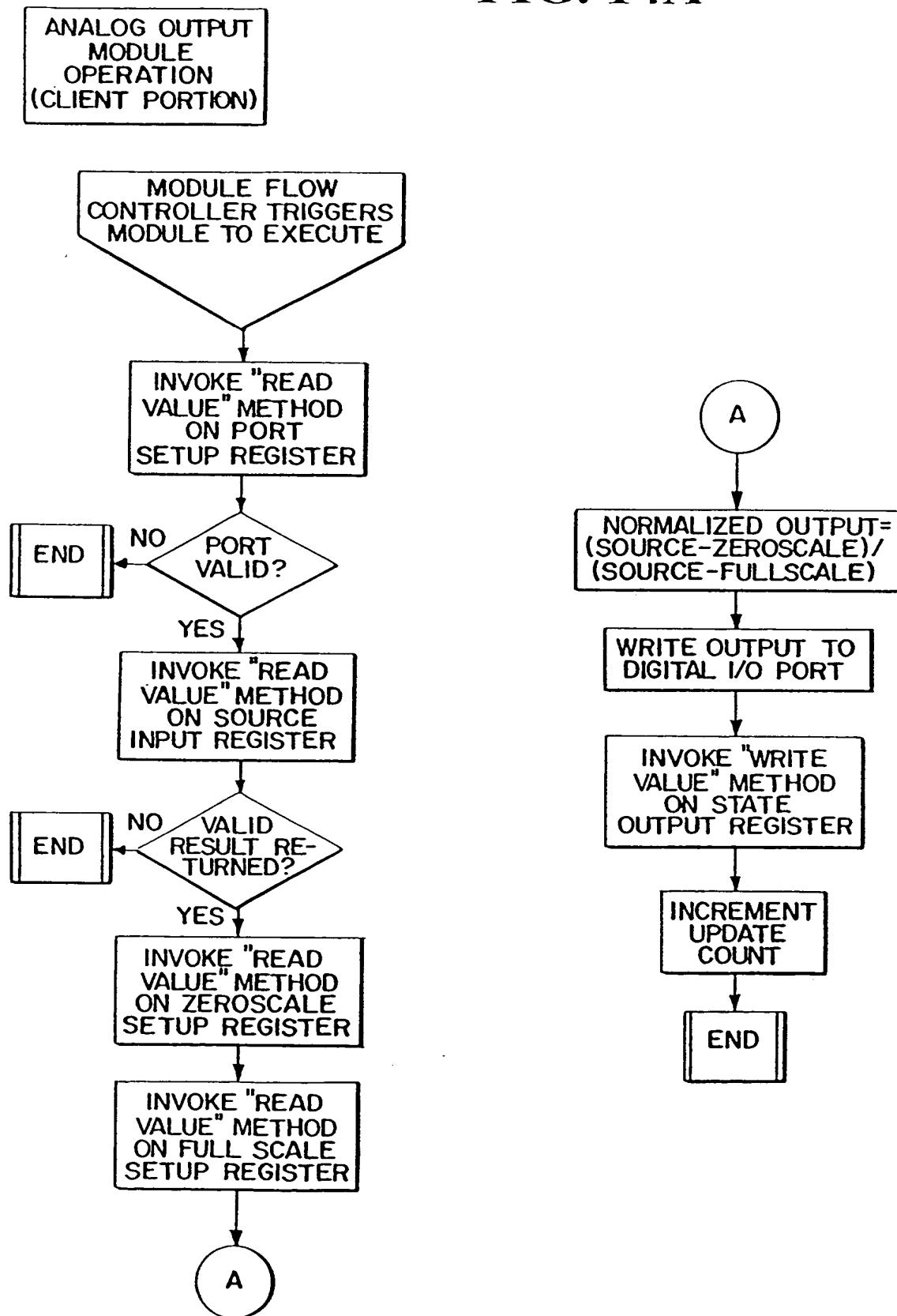


FIG. 15

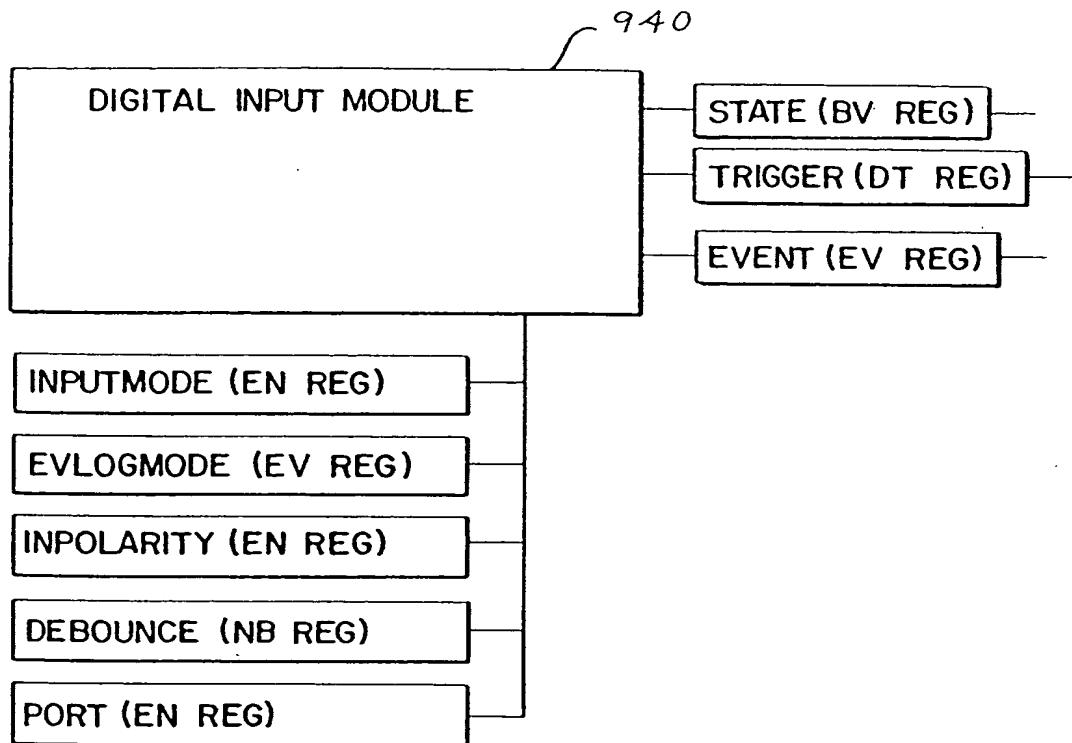


FIG. 16

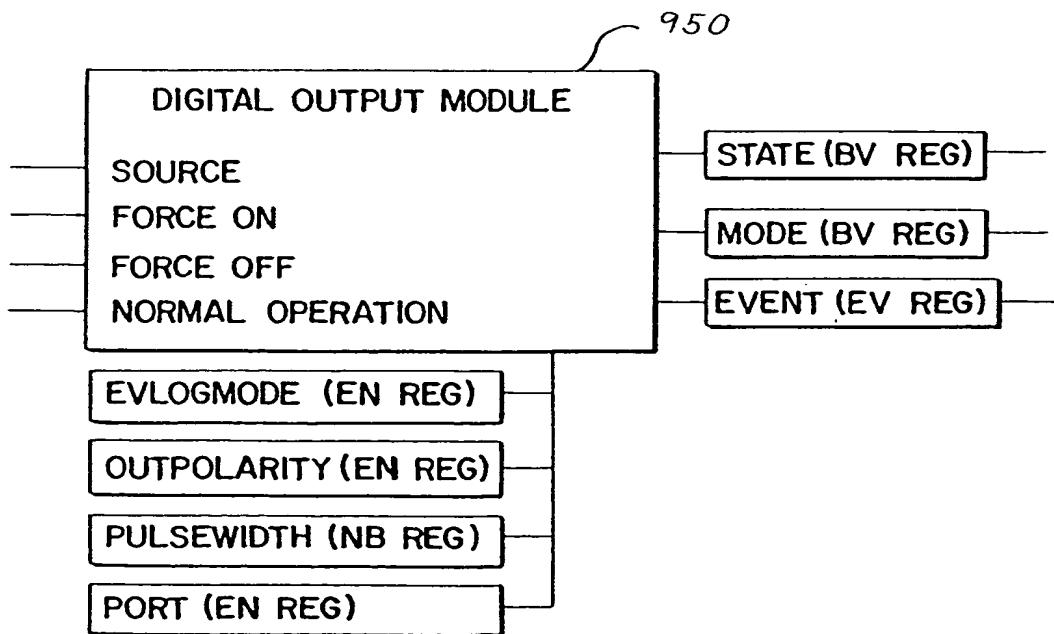


FIG. 15A

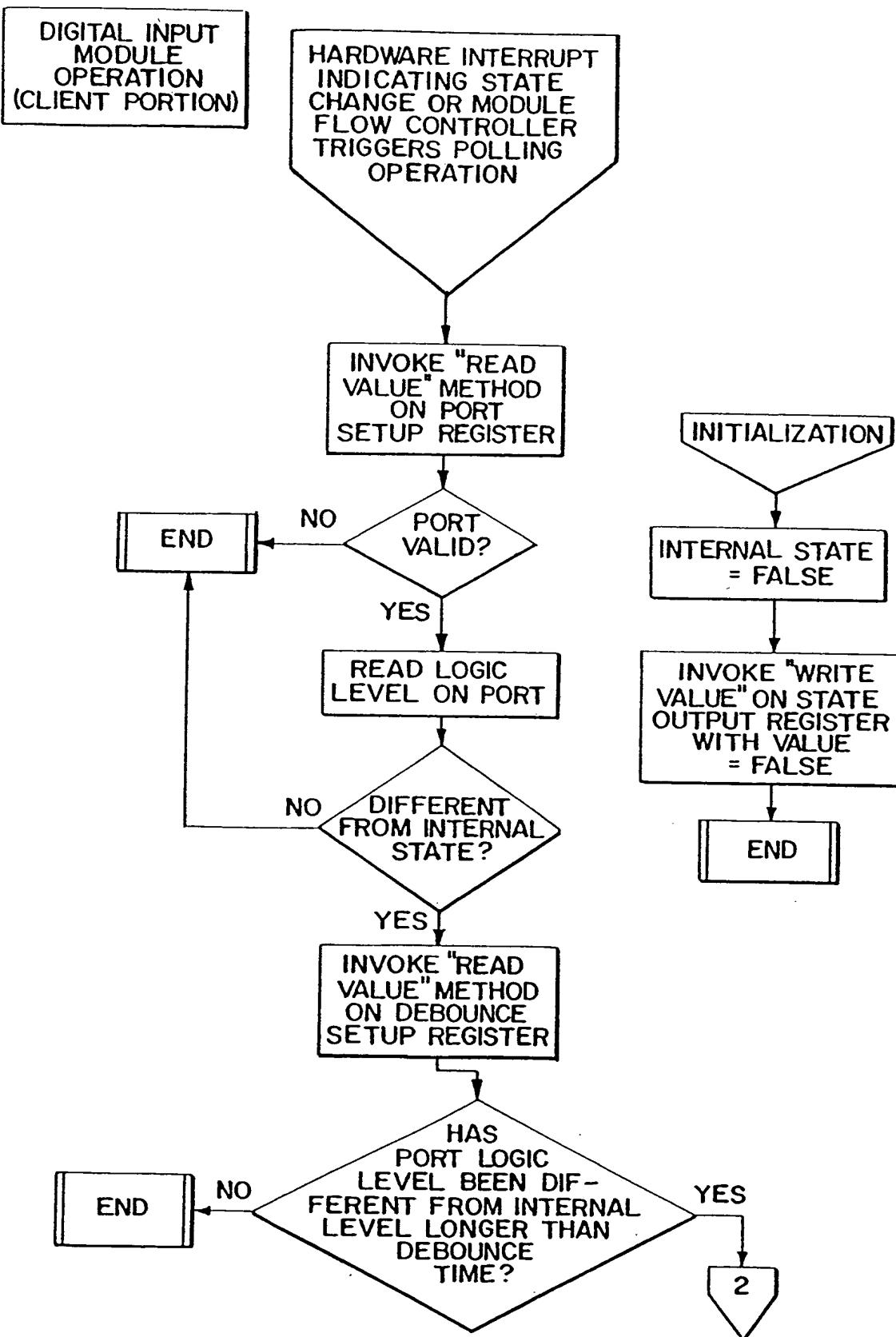


FIG. 15B

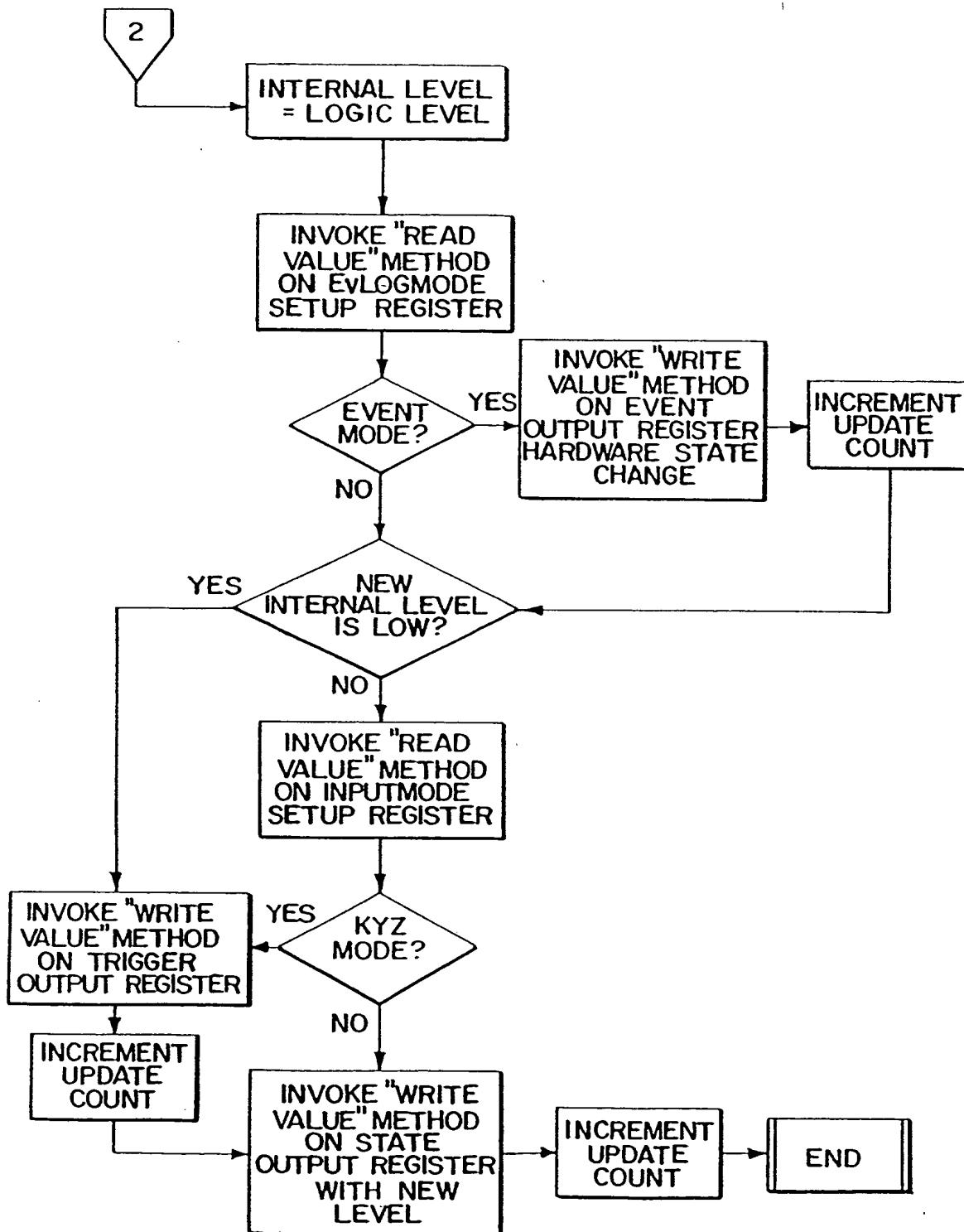


FIG. 16A

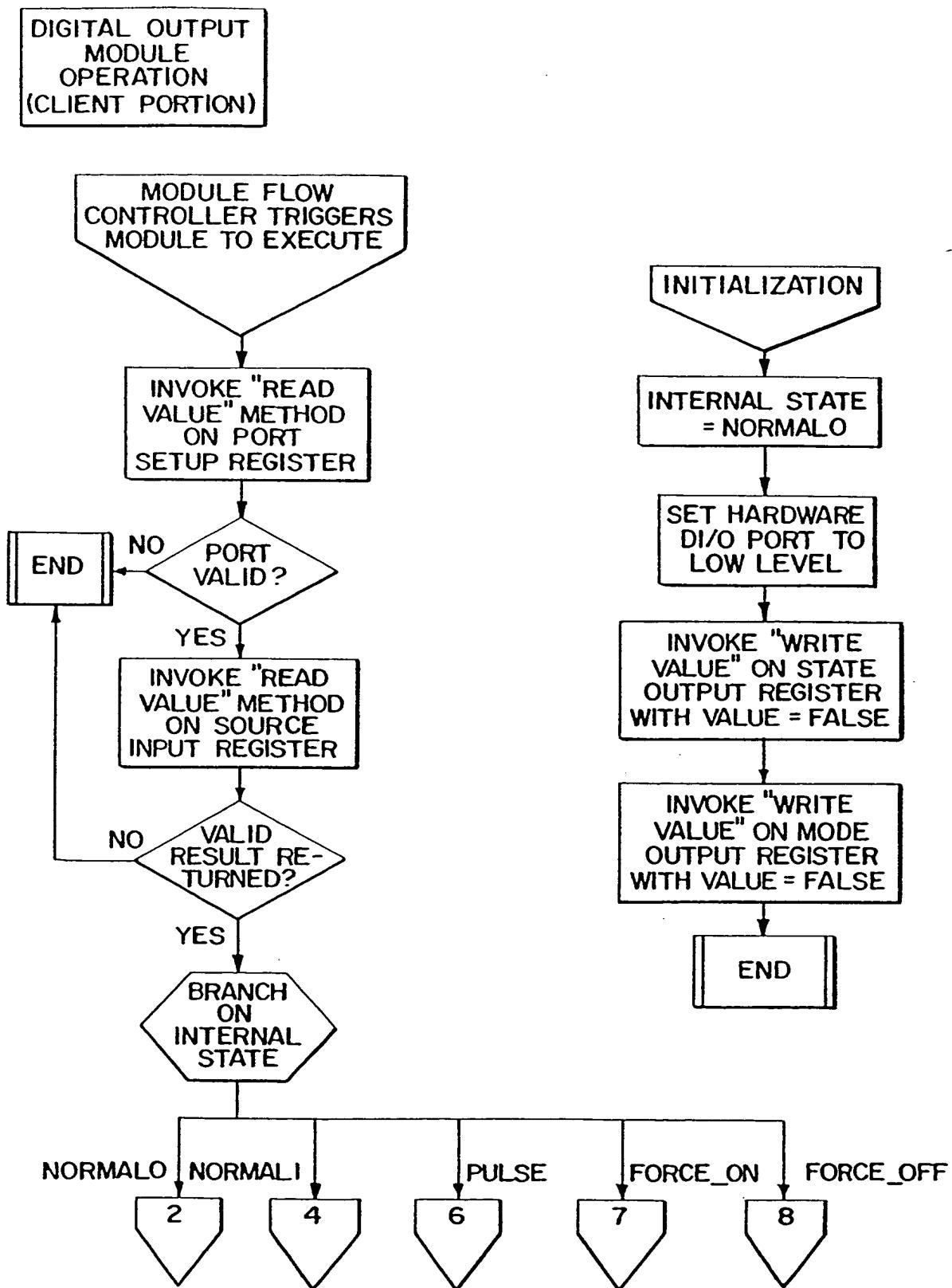
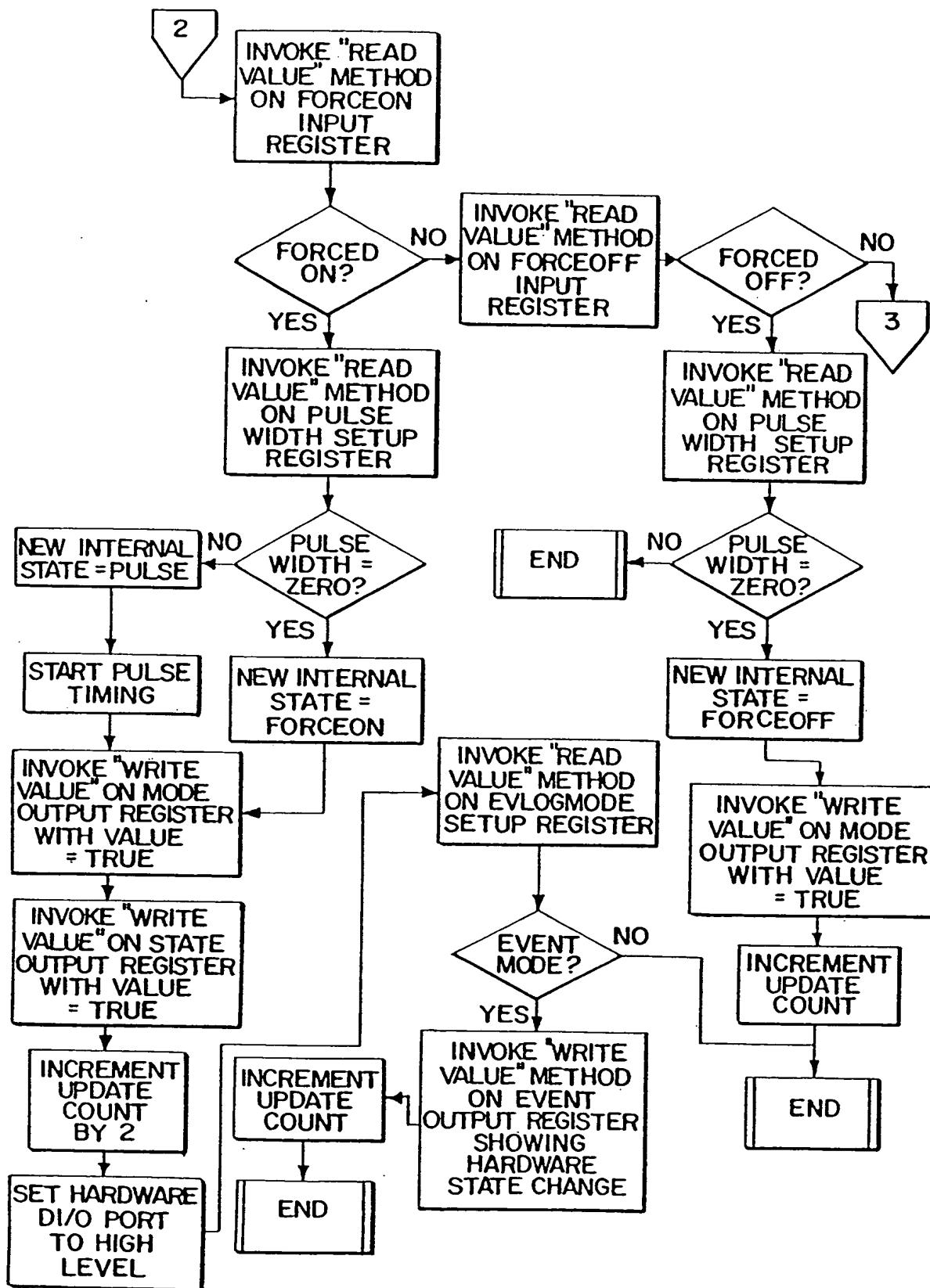


FIG. 16B



31 8 07

FIG. 16C

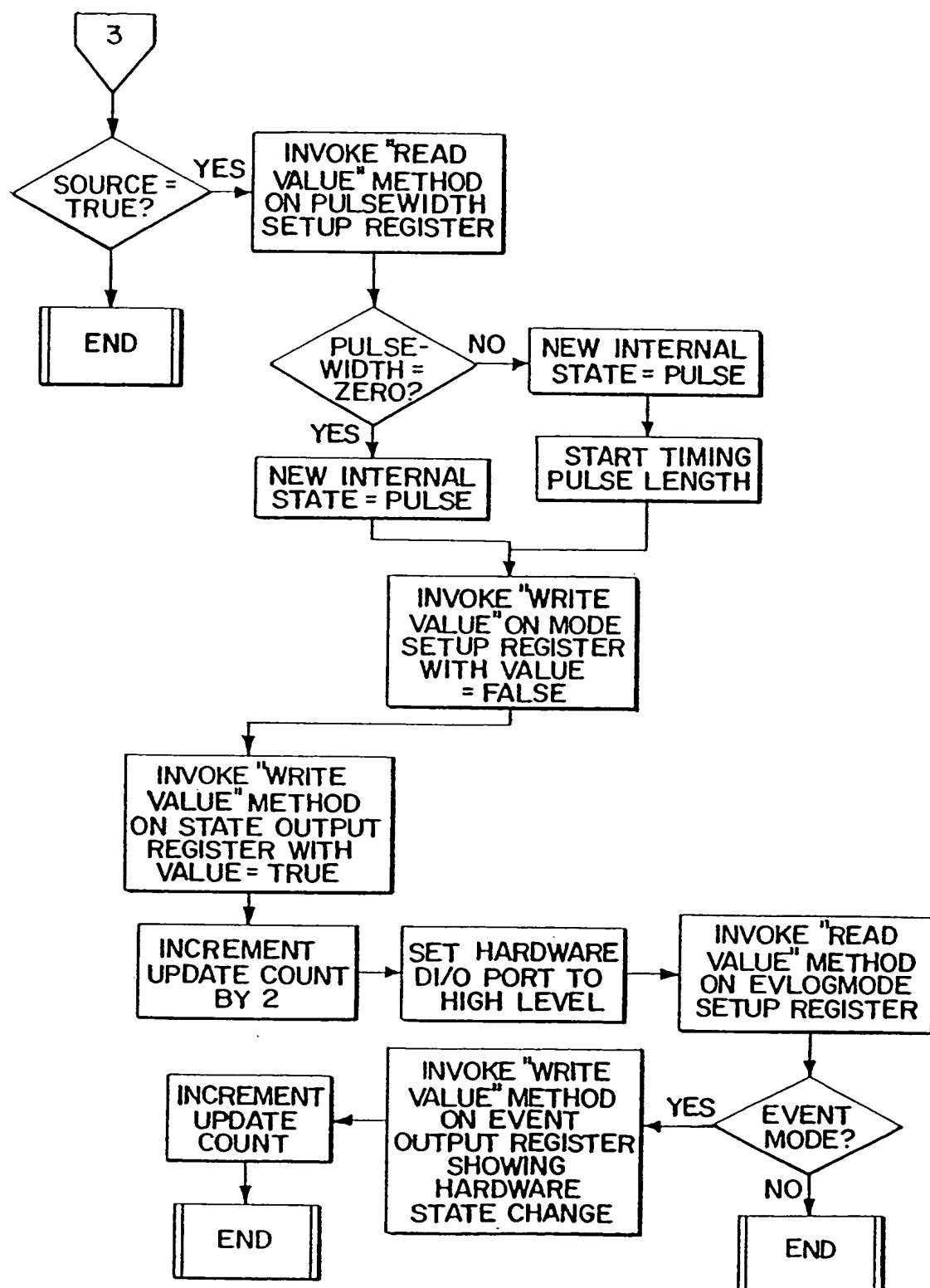


FIG. 16D

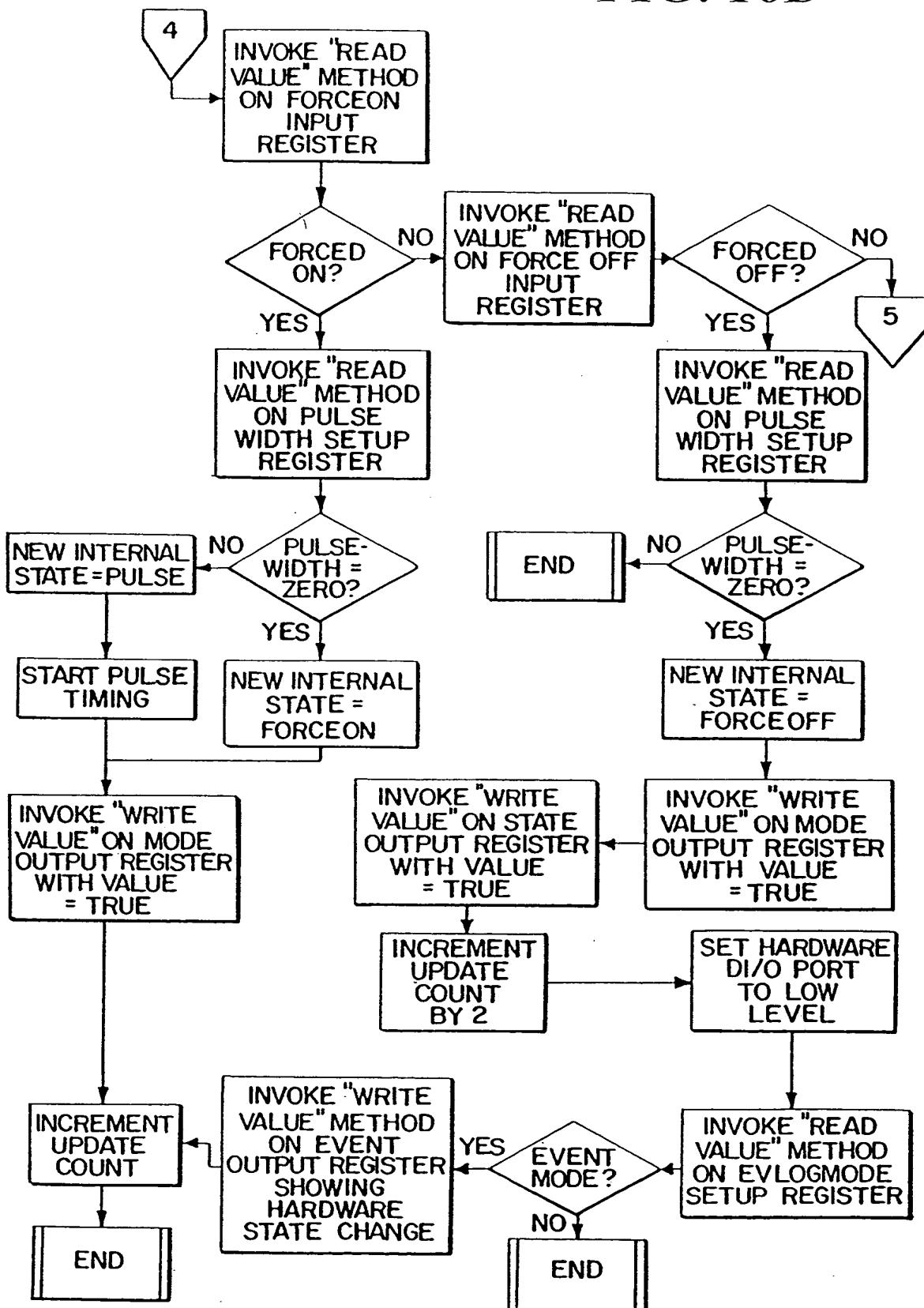


FIG. 16E

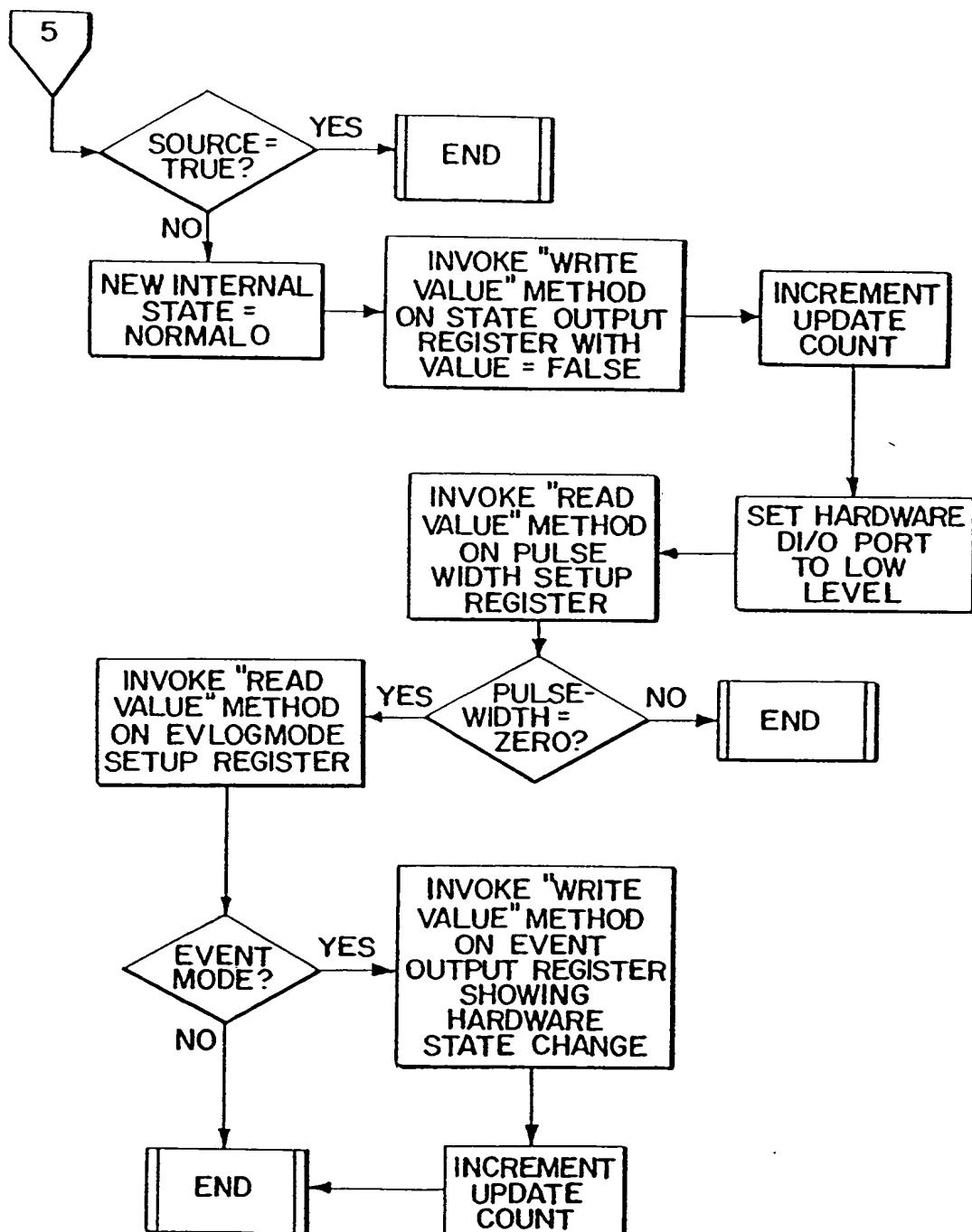


FIG. 16F

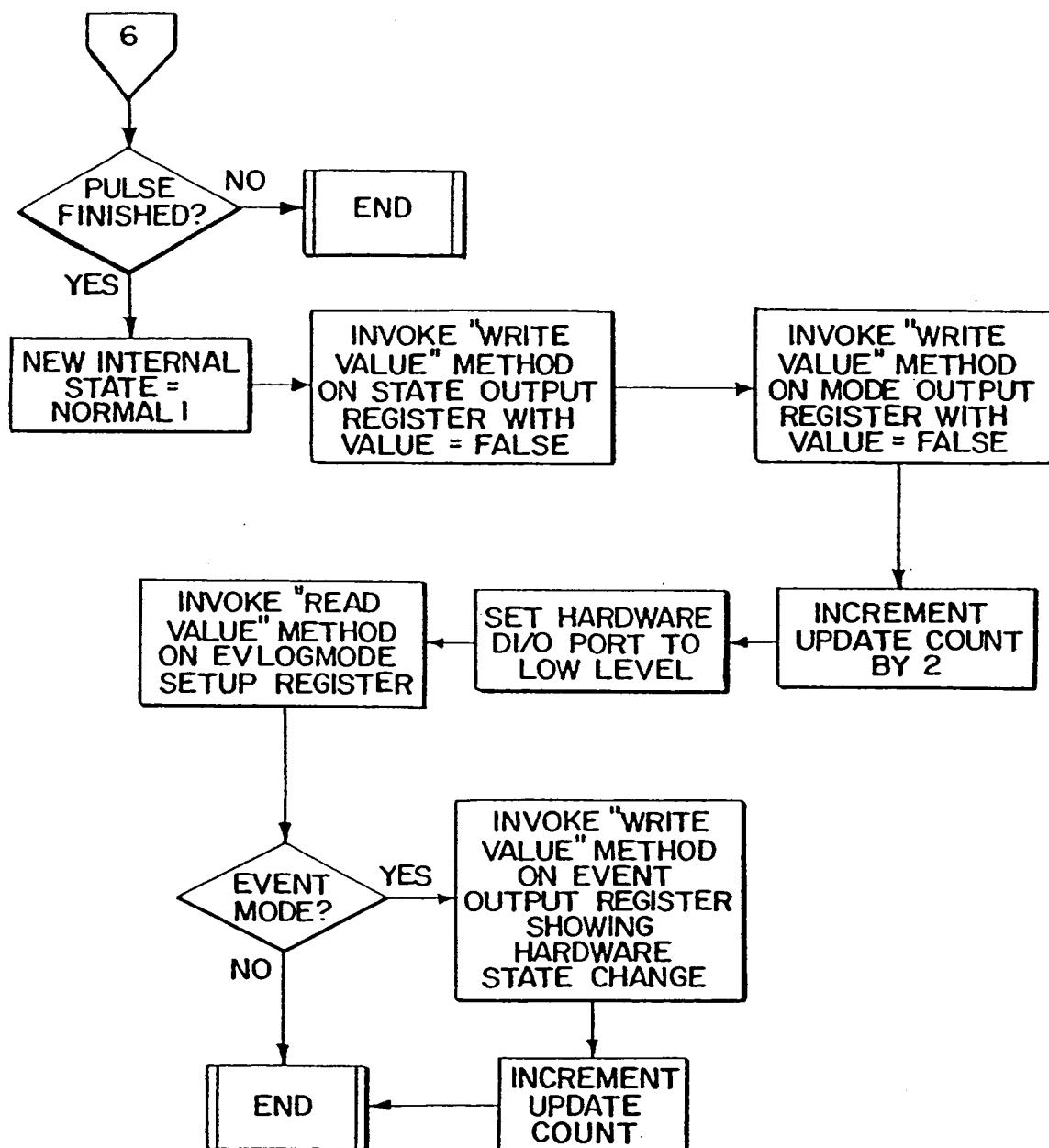


FIG. 16G

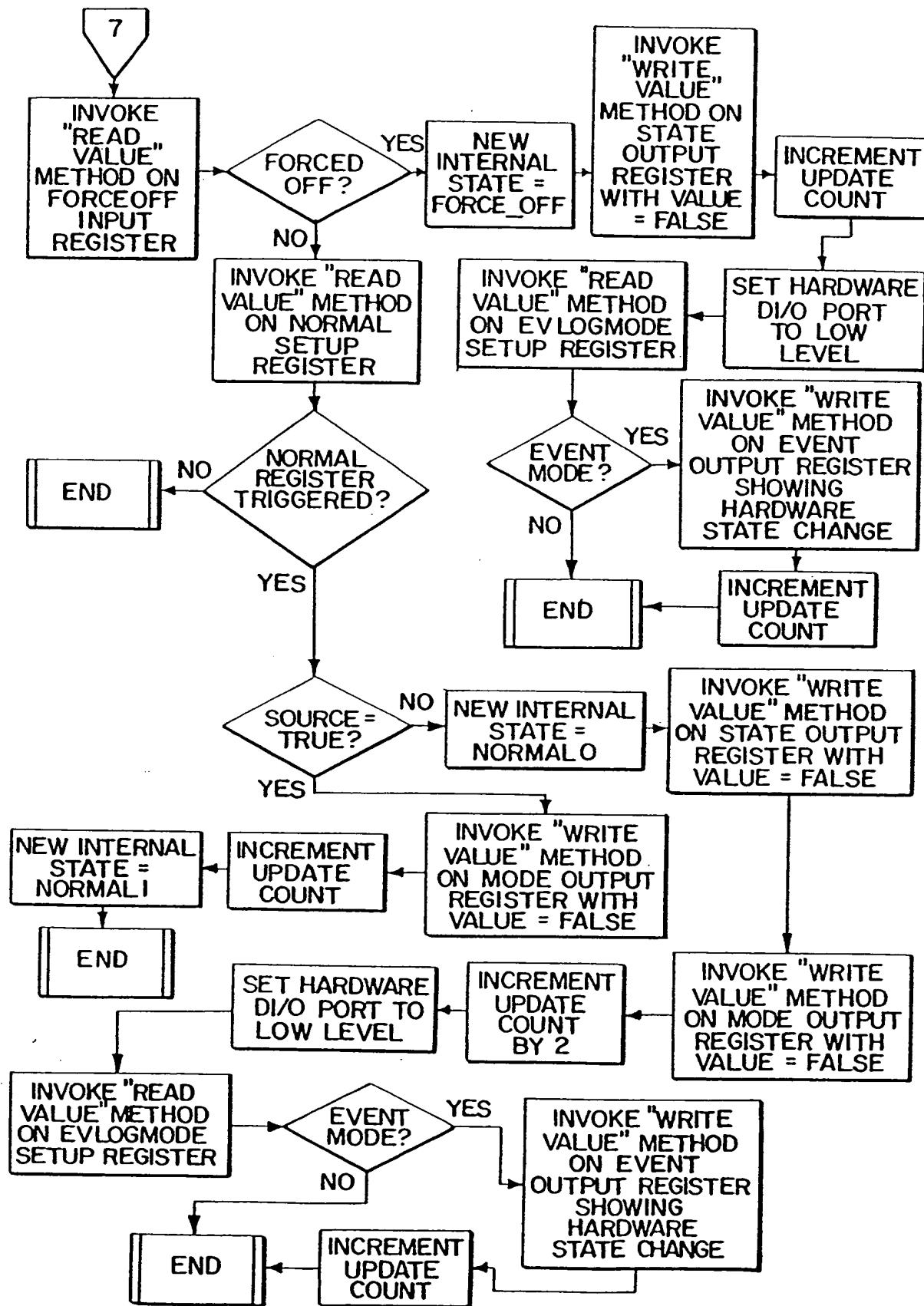


FIG. 16H

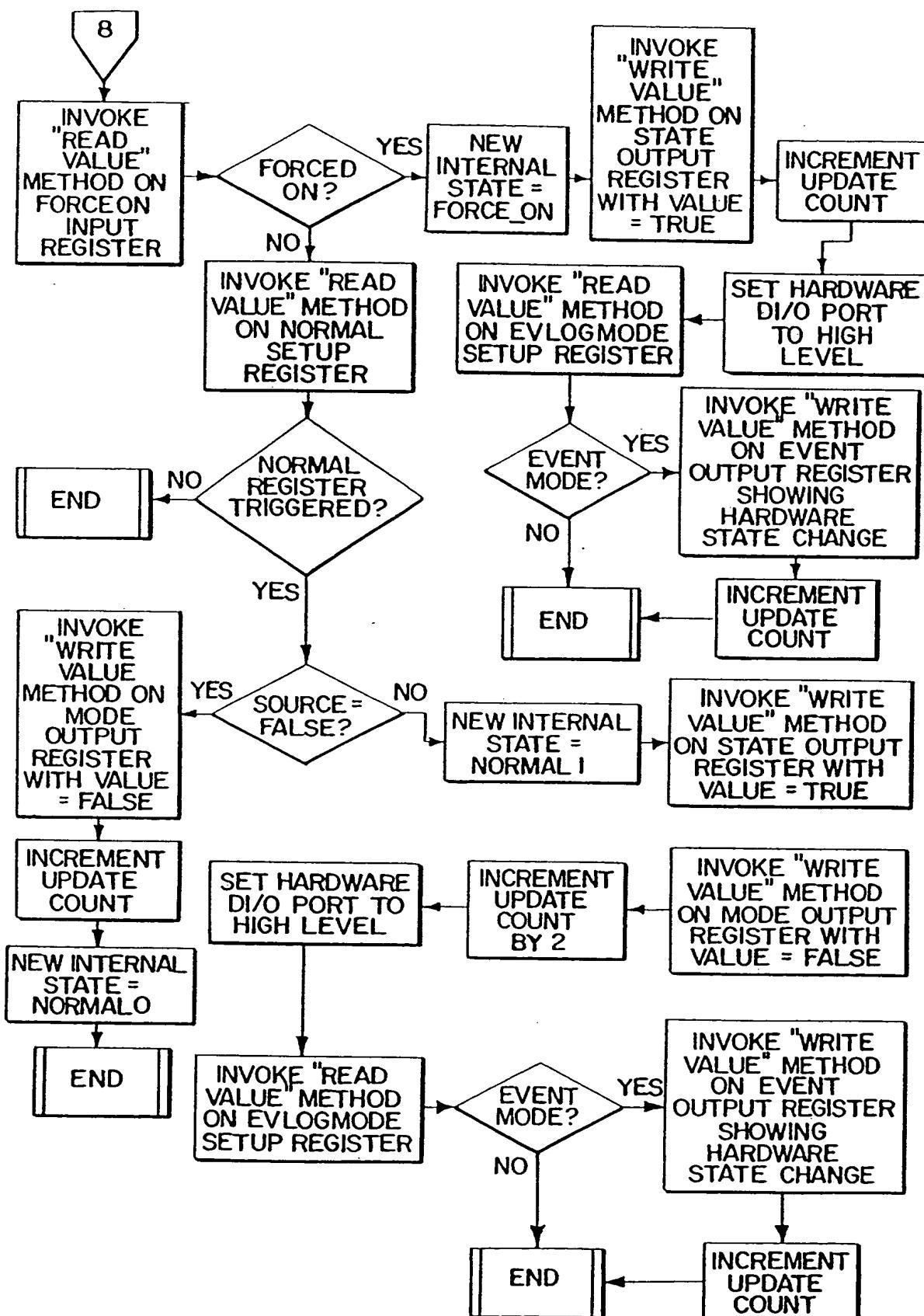


FIG. 17

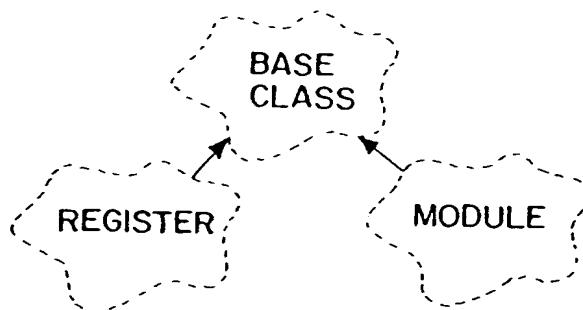


FIG. 17A

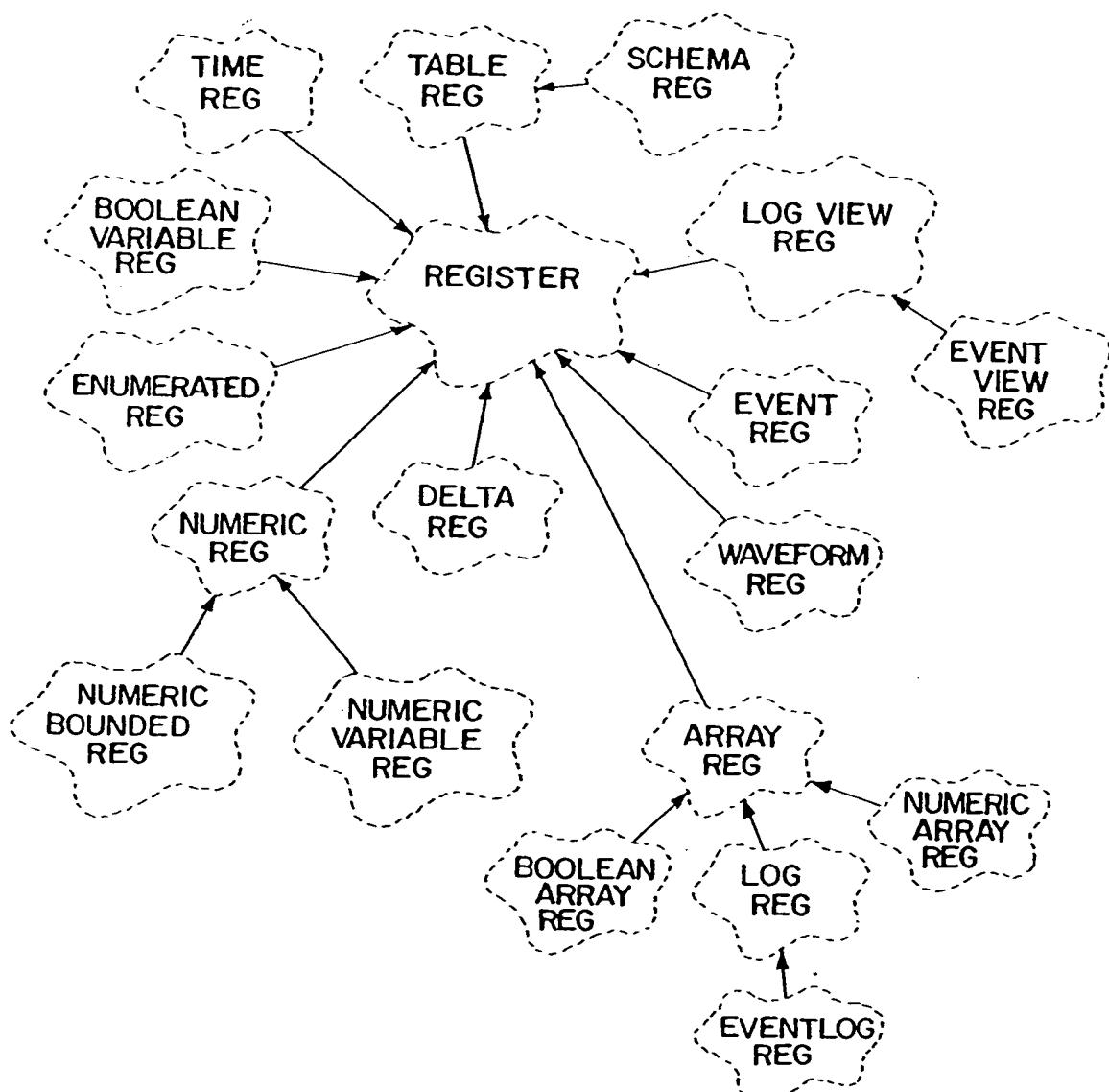


FIG. 17B

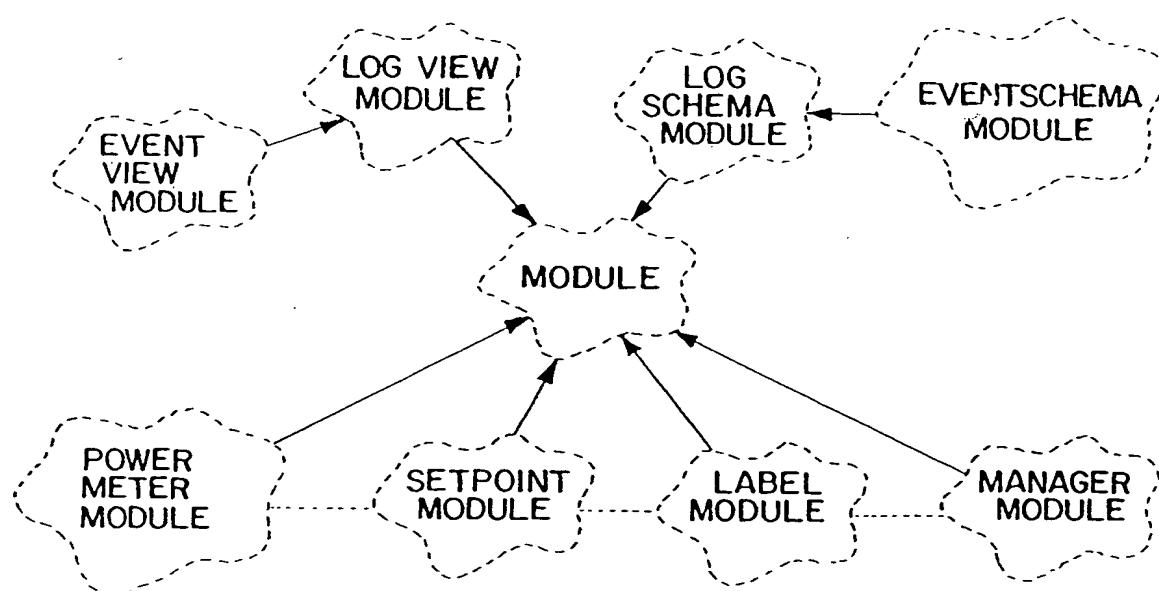
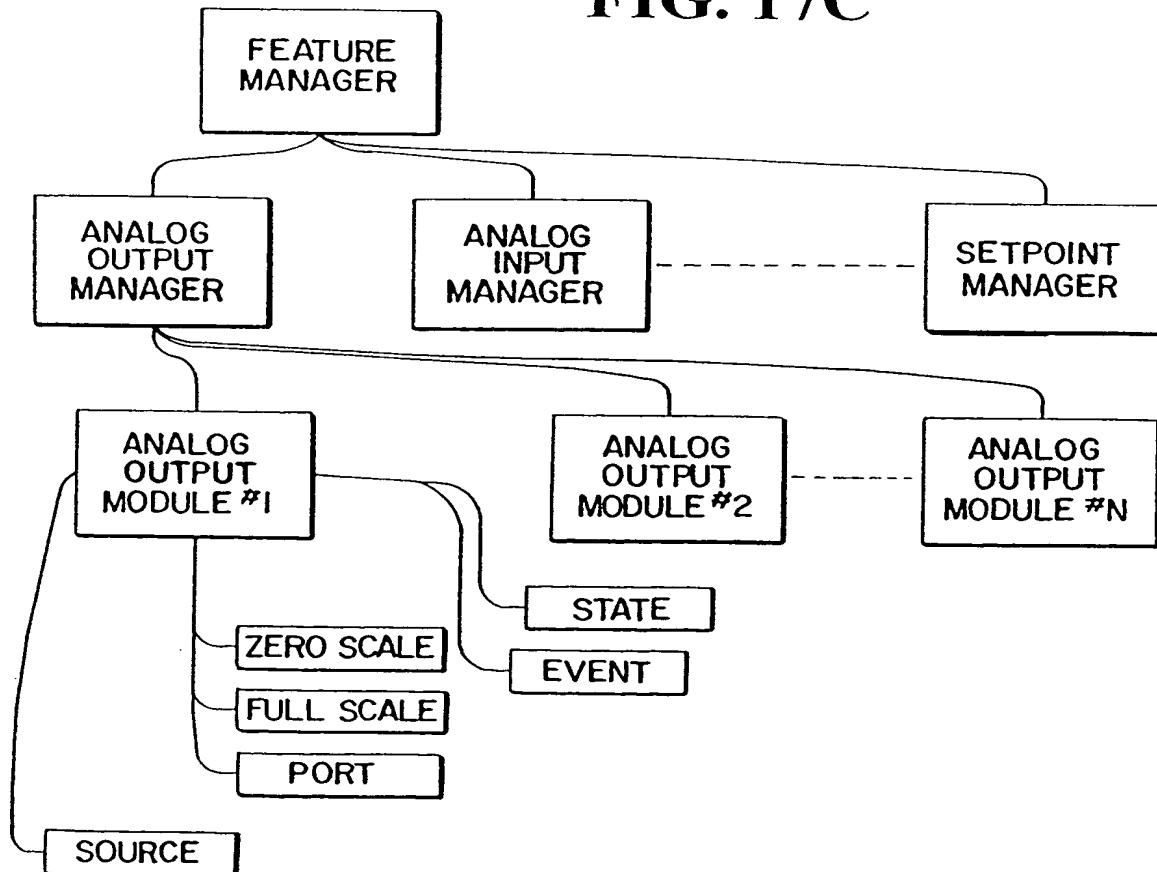


FIG. 17C



39 Q 307

FIG. 18

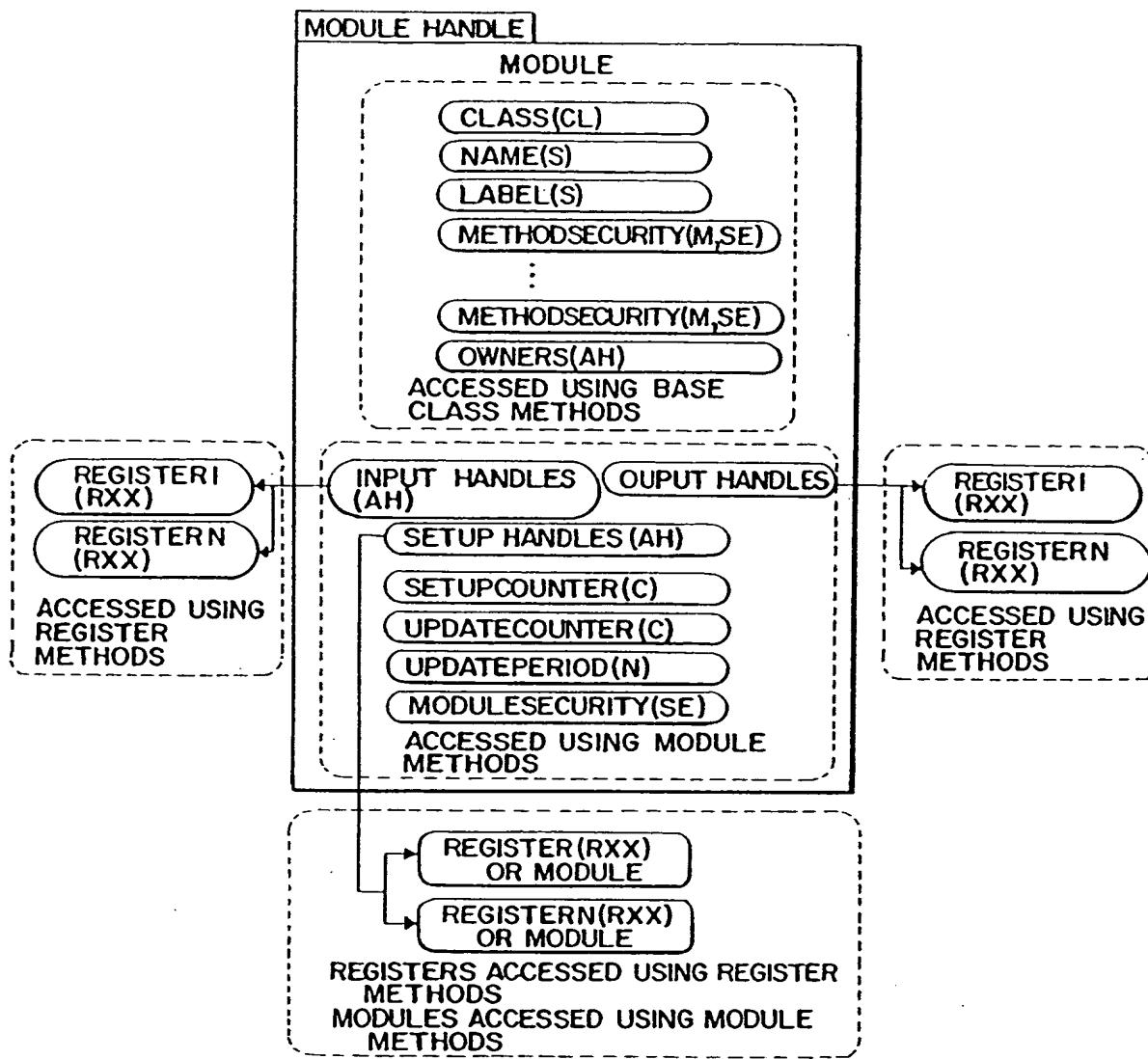


FIG. 19

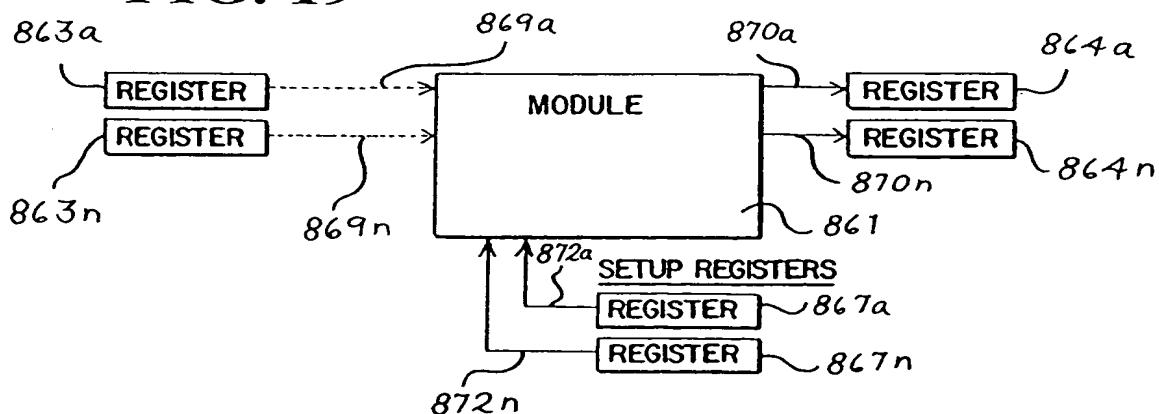


FIG. 19A

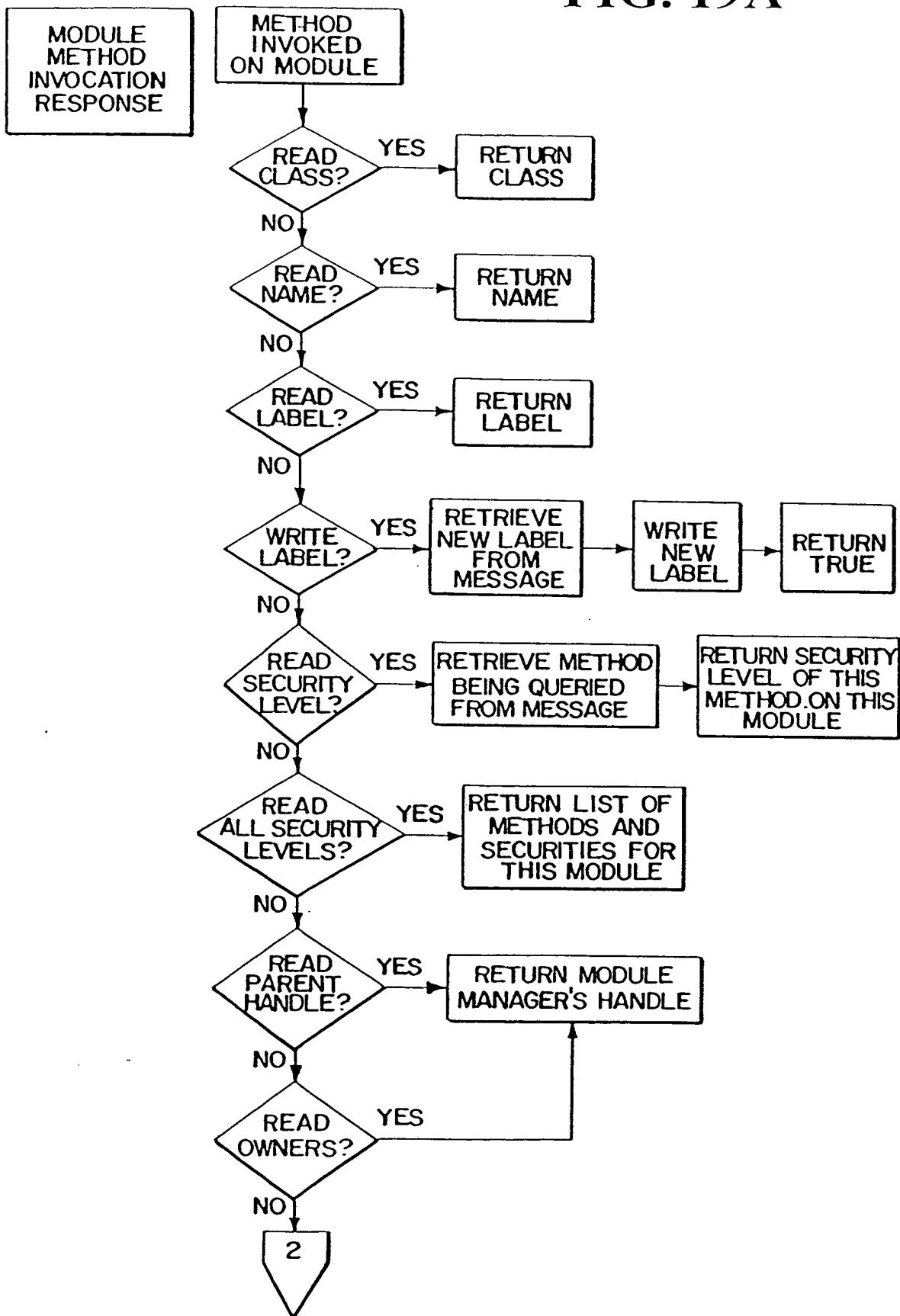


FIG. 19B

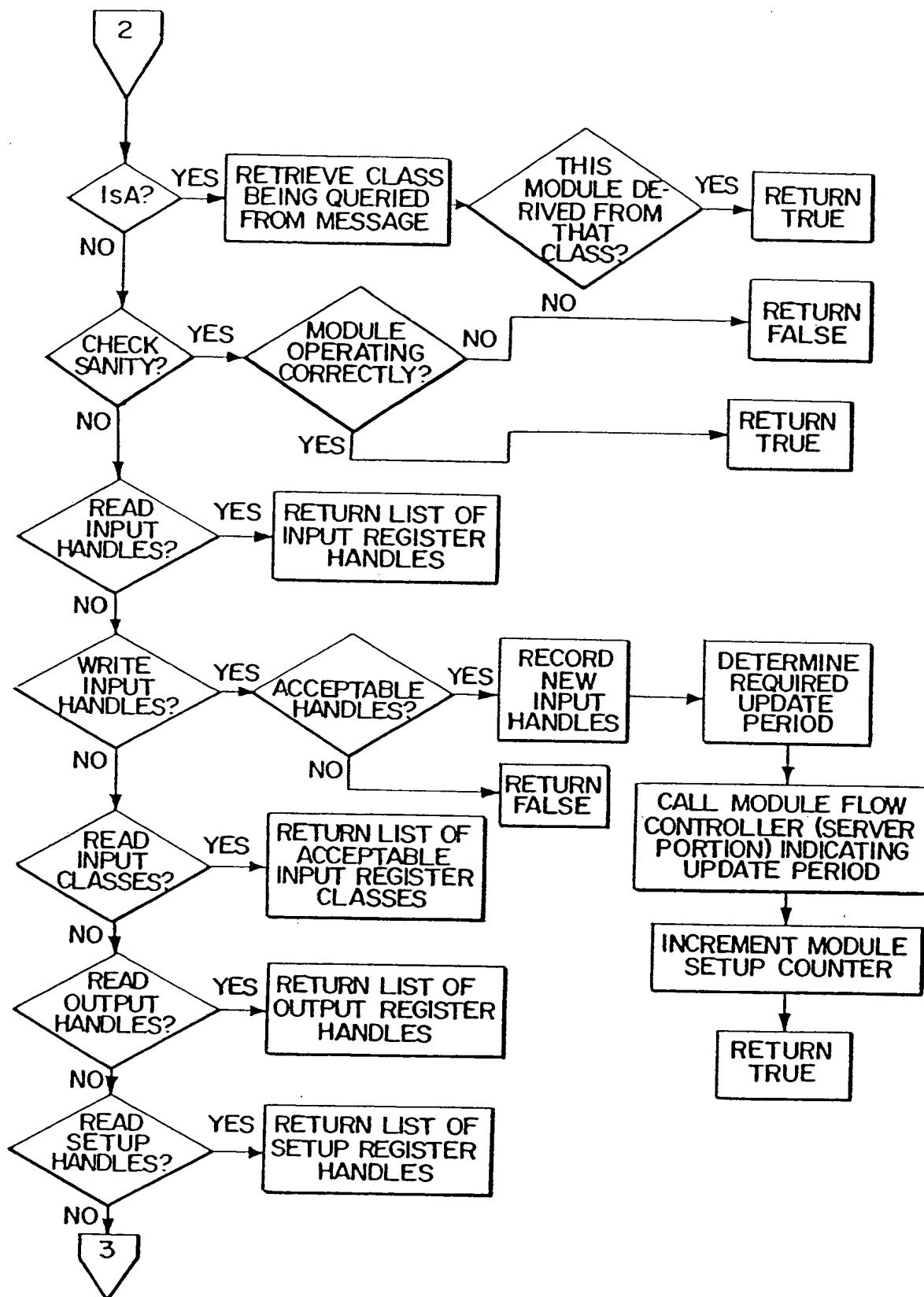


FIG. 19C

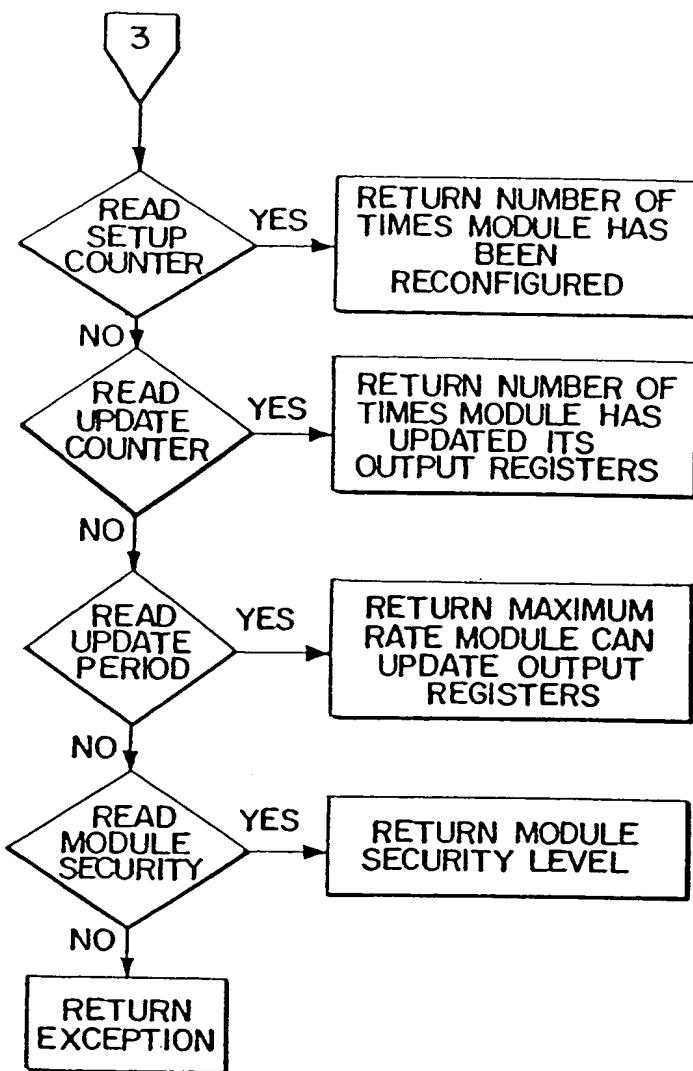


FIG. 20

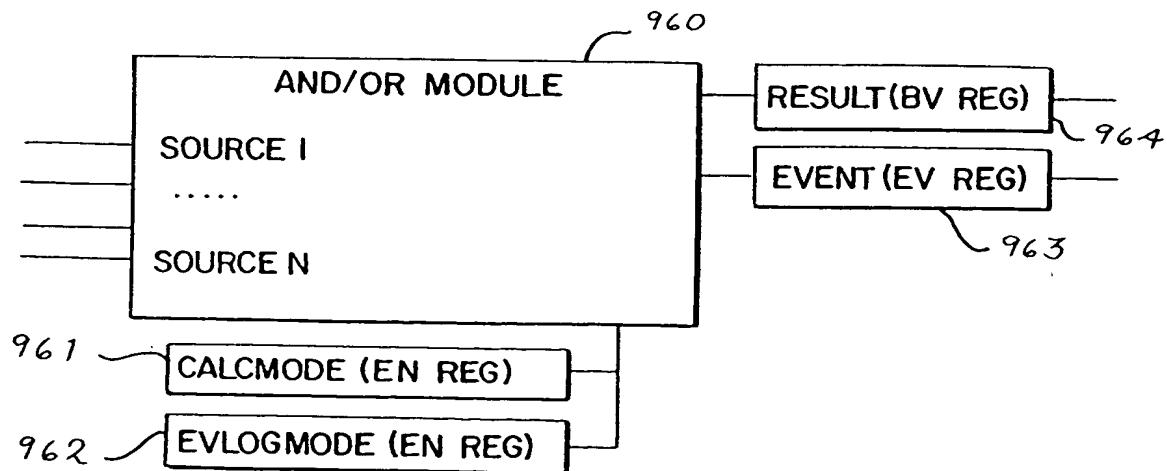


FIG. 20A

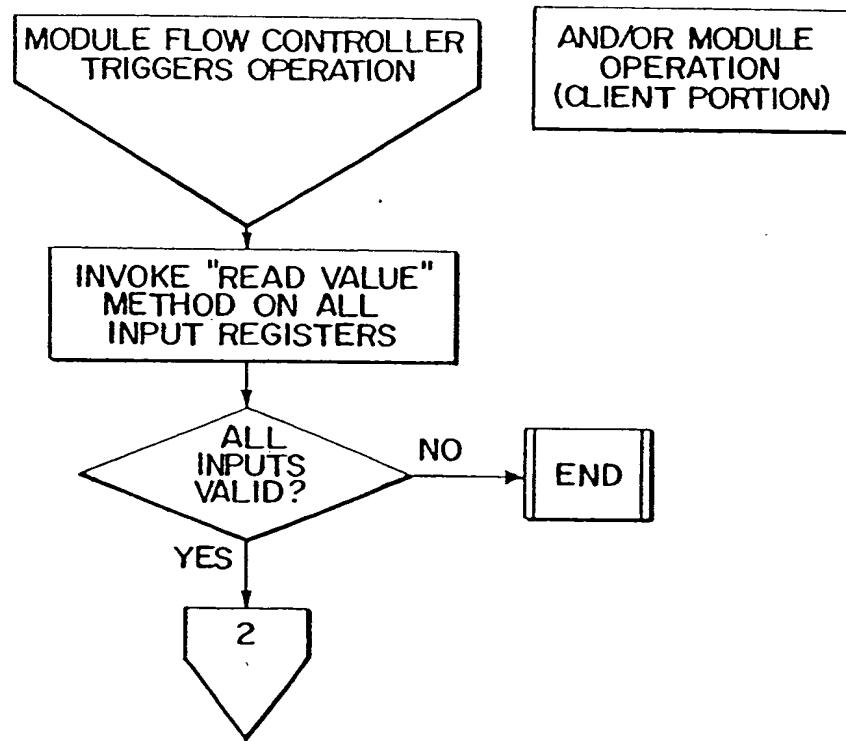


FIG. 21

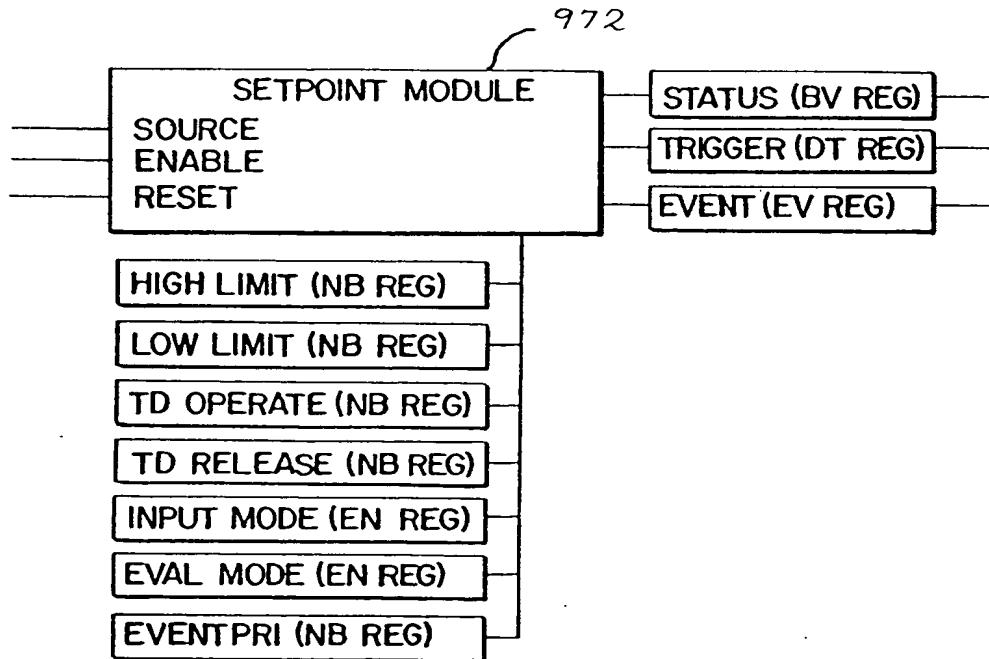


FIG. 20B

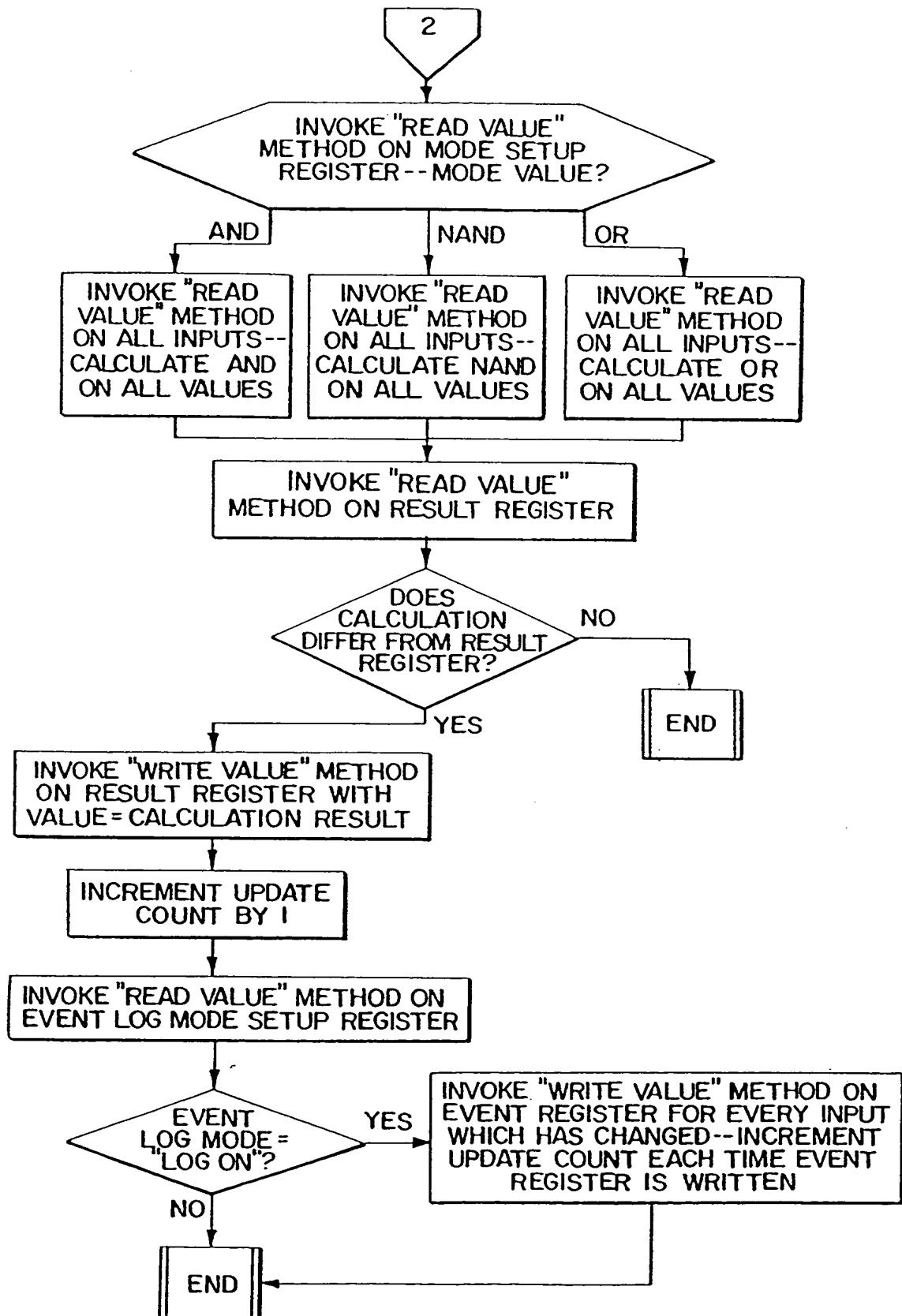


FIG. 21A

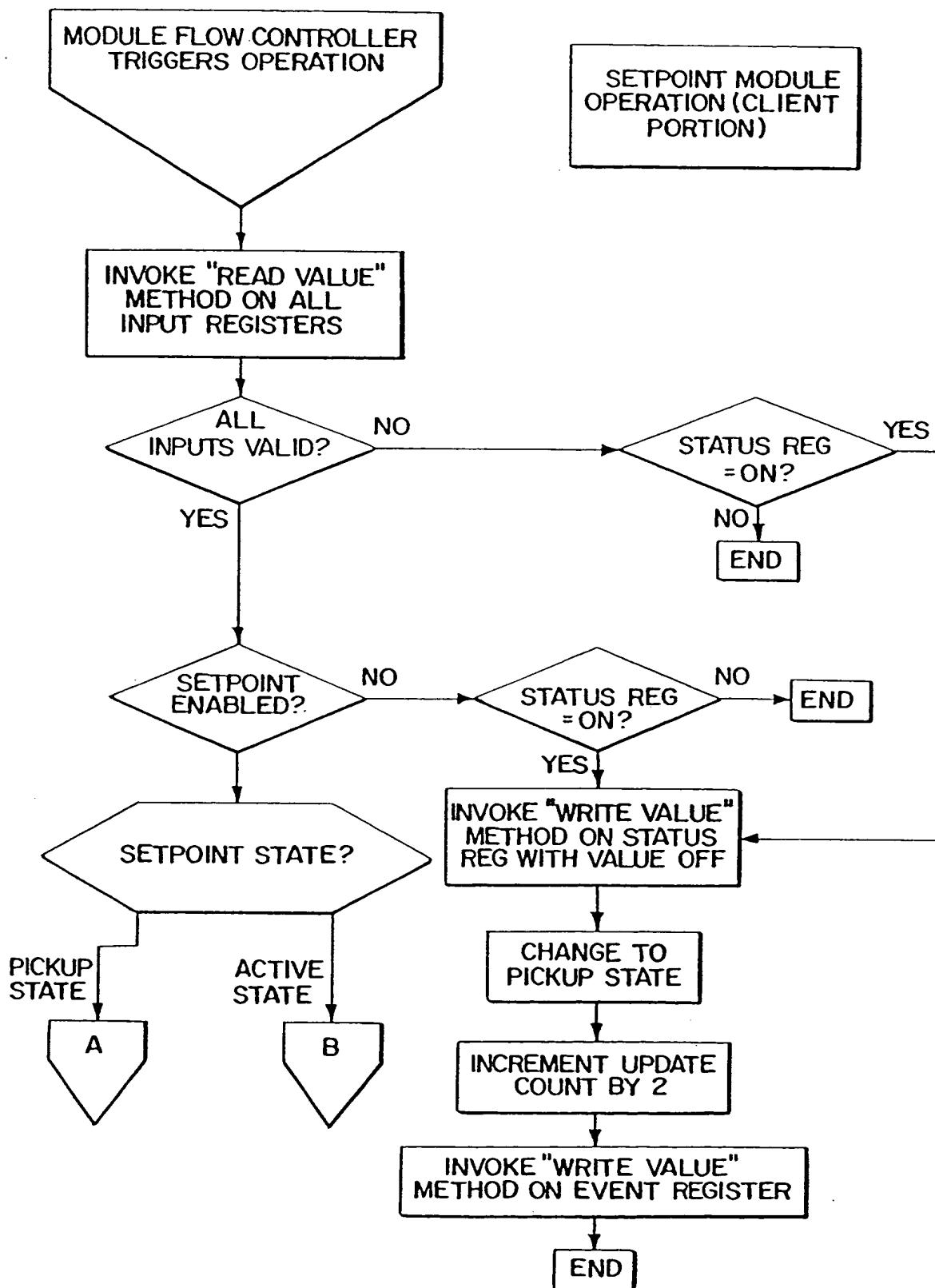


FIG. 21B

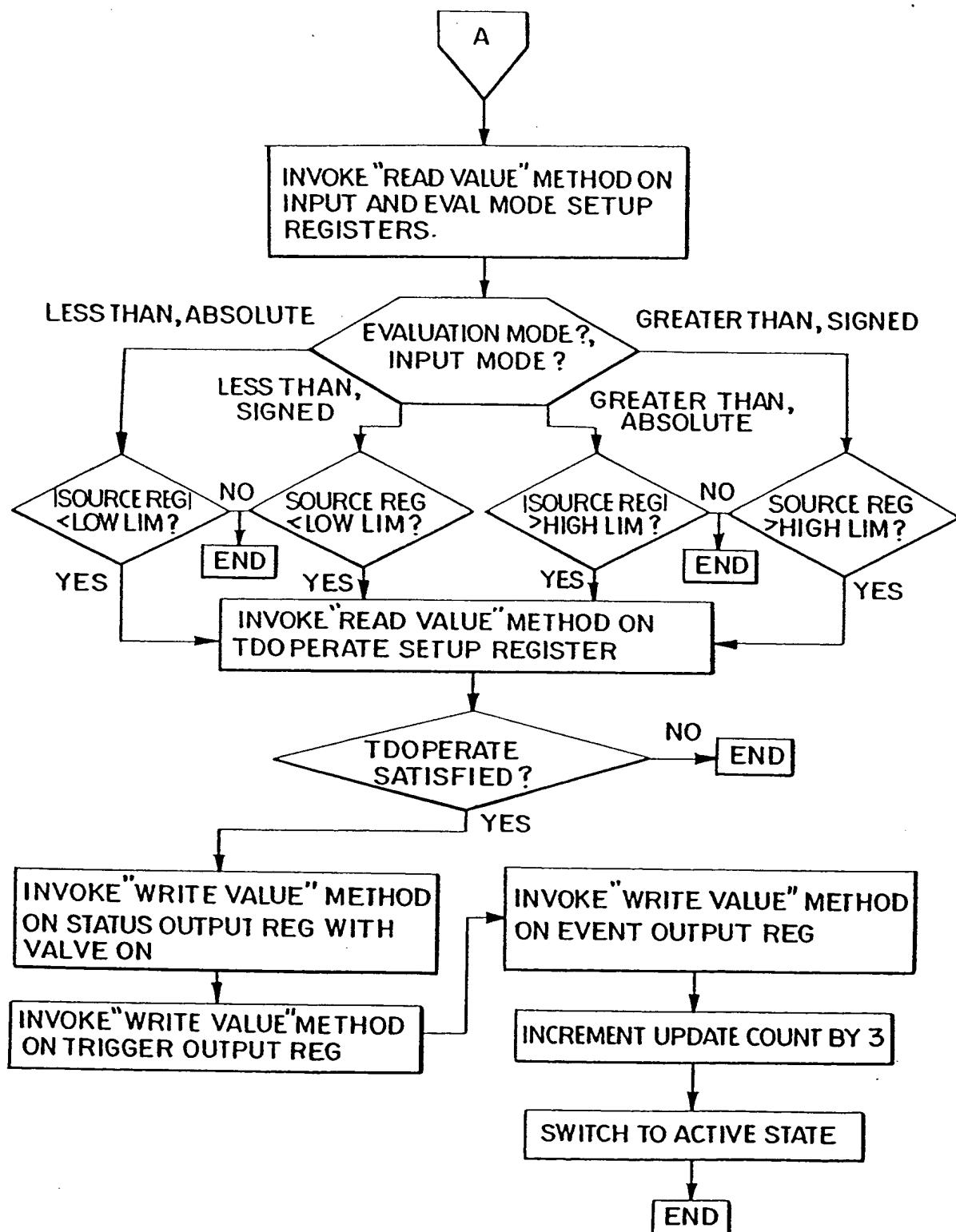
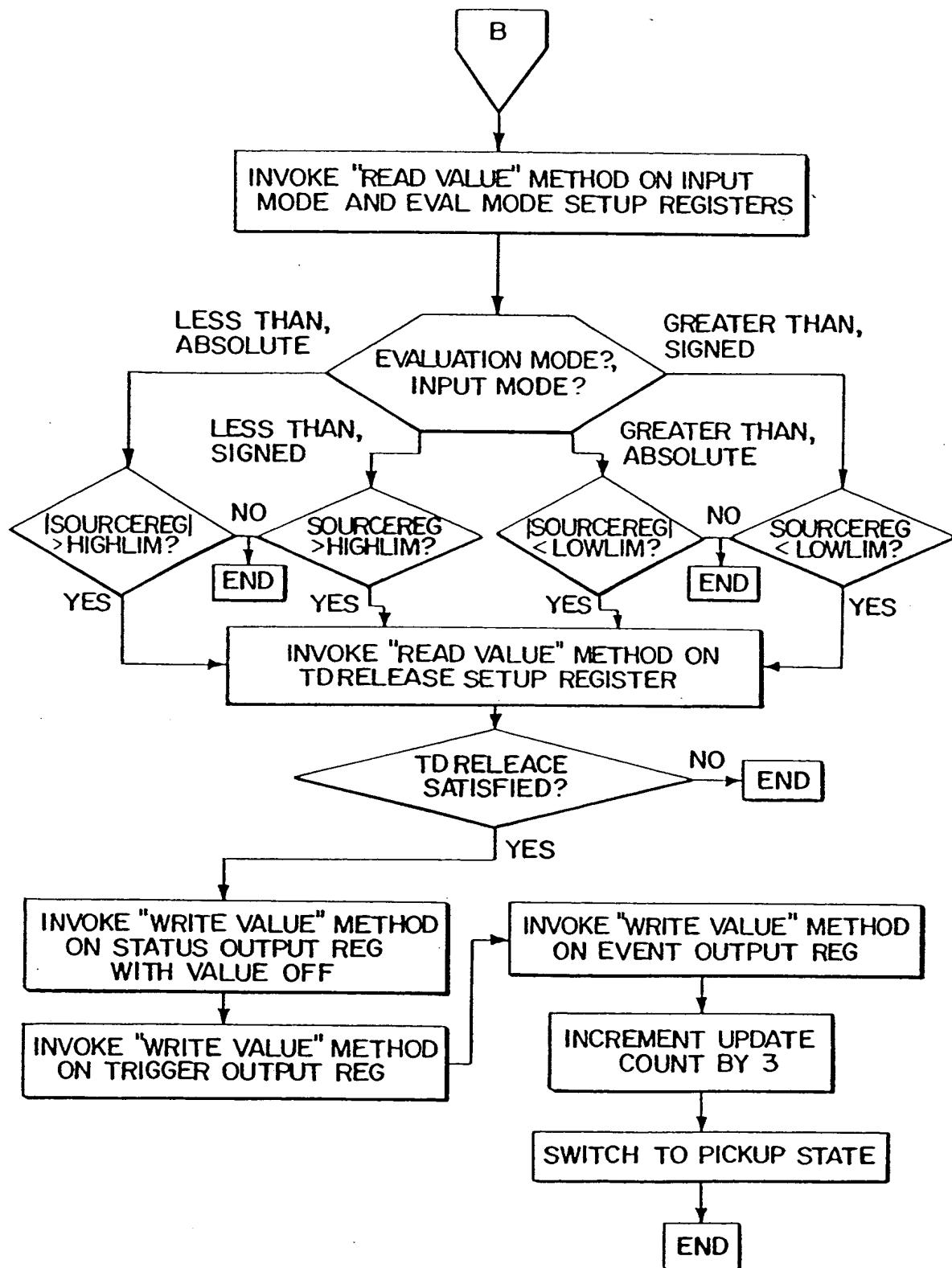


FIG. 21C



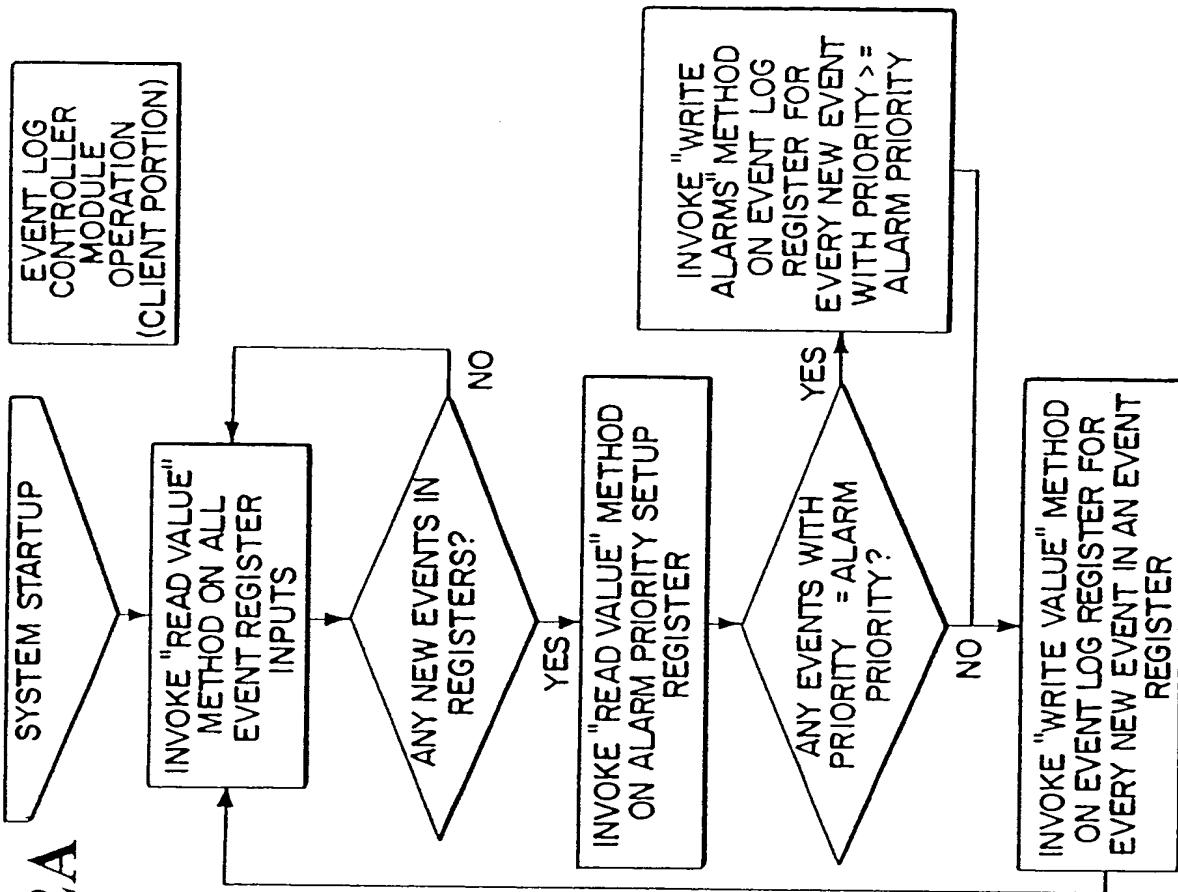
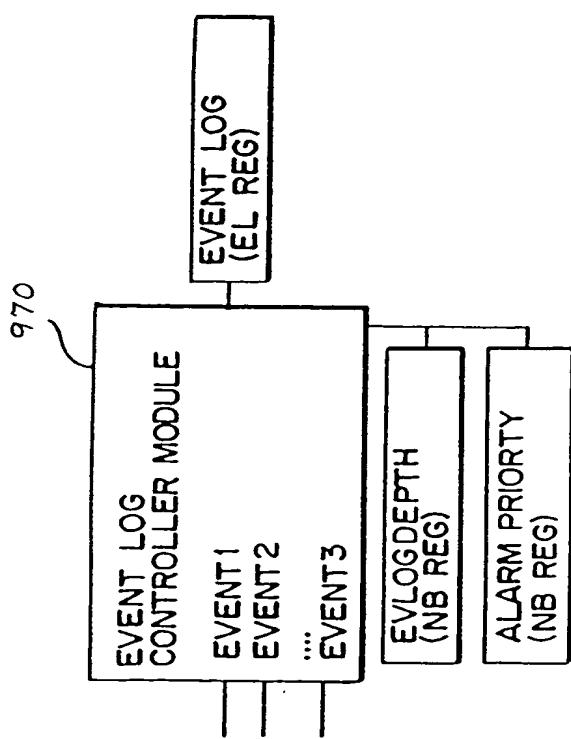
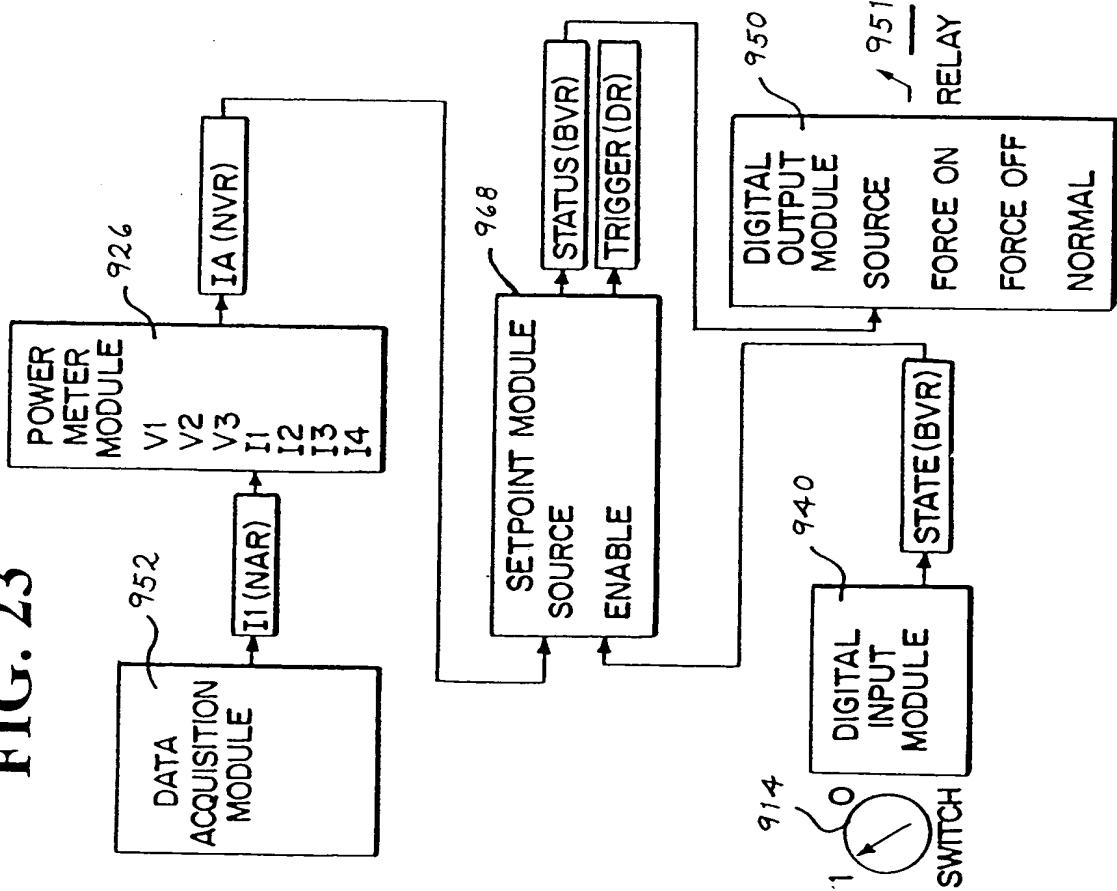


FIG. 22



**FIG. 23**



**FIG. 24A**

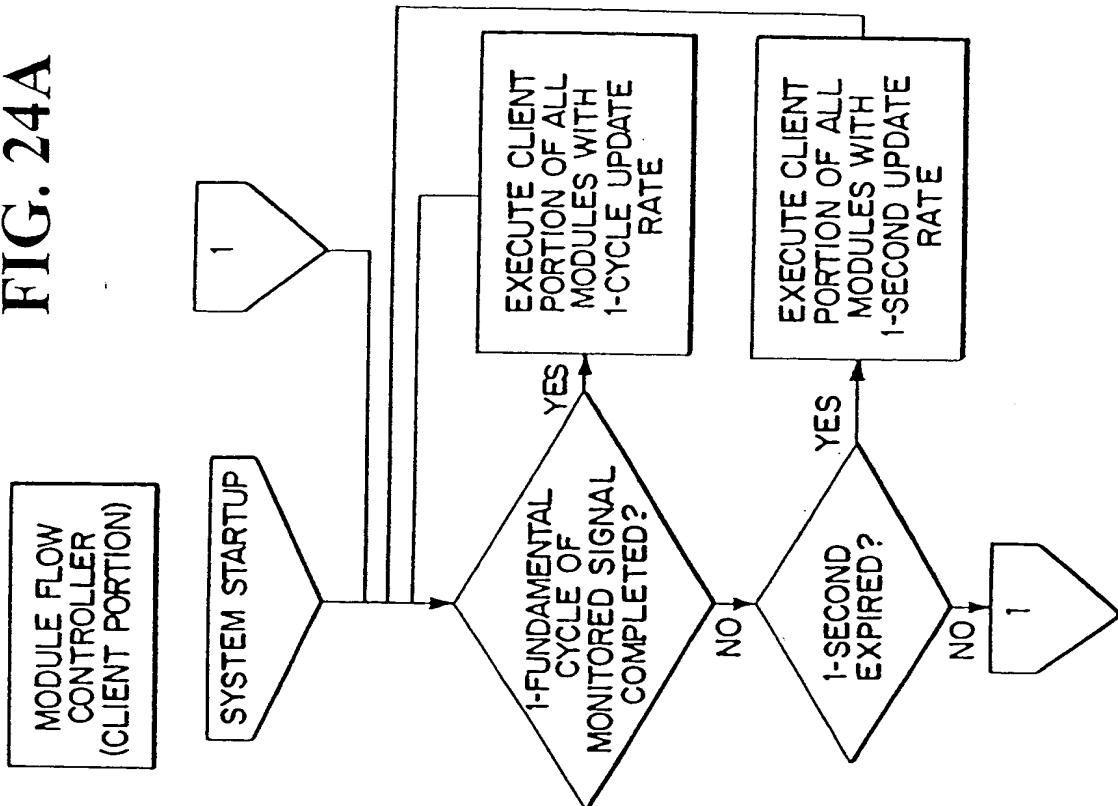


FIG. 25

FIG. 24B

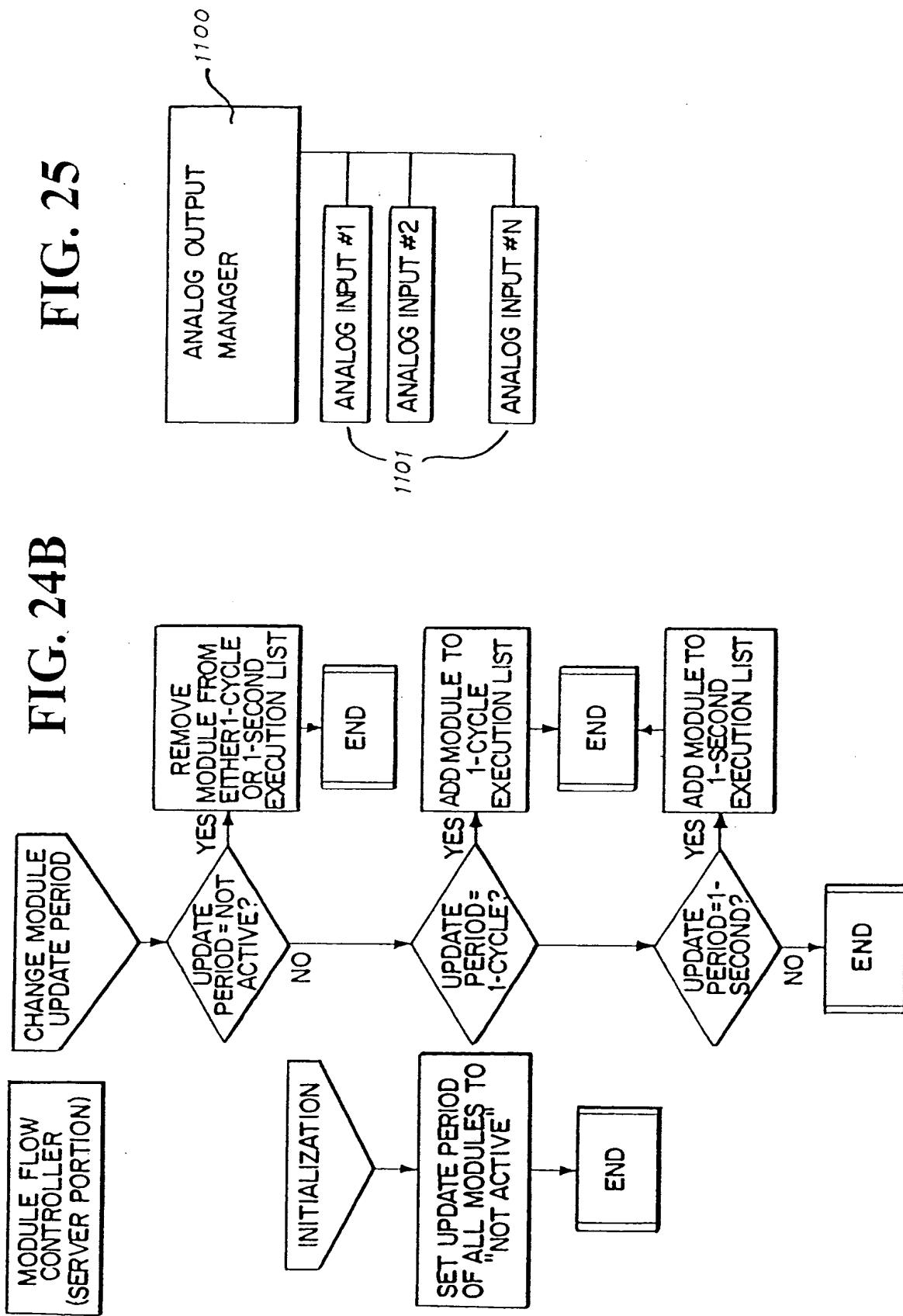


FIG. 25A

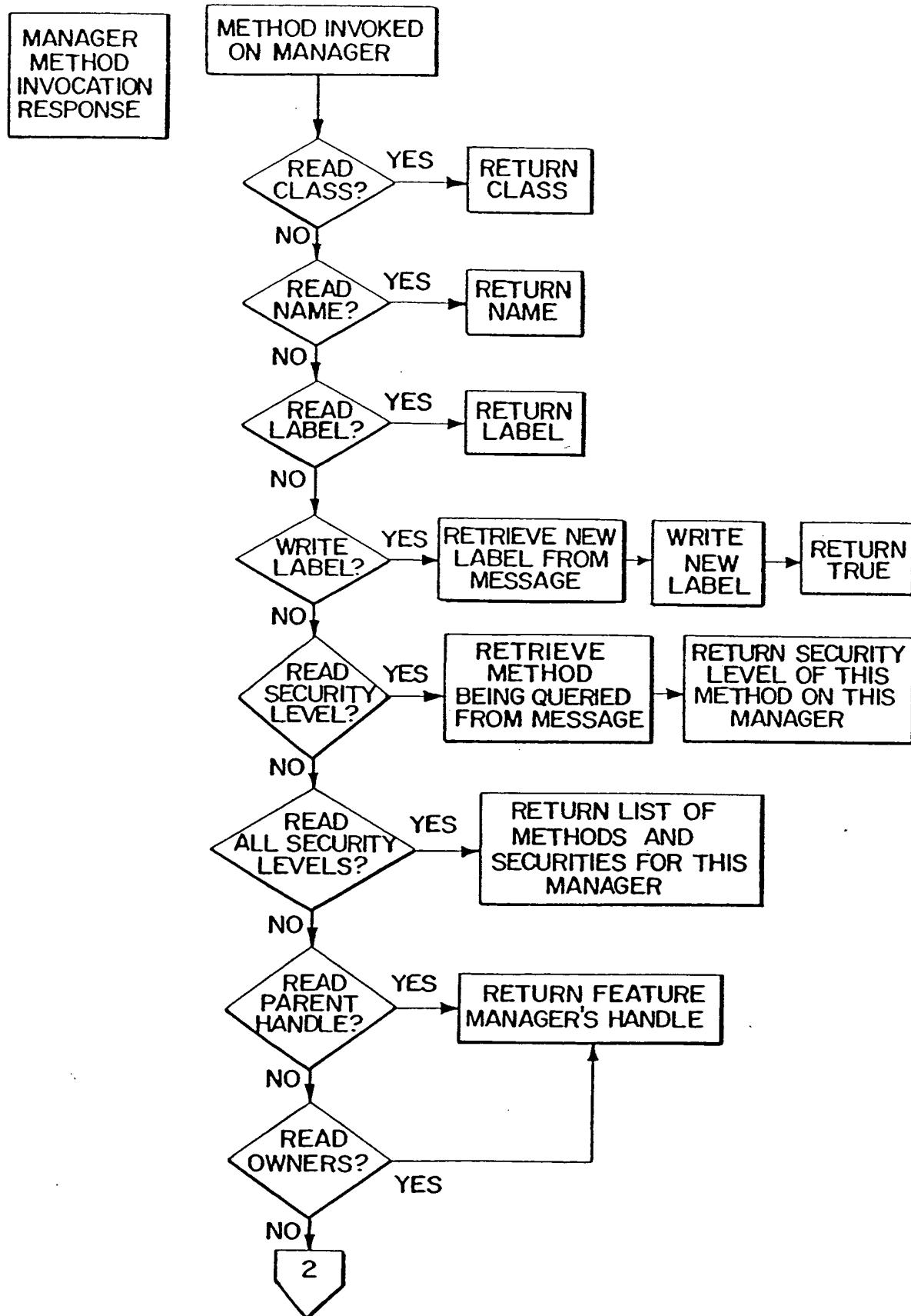


FIG. 25B

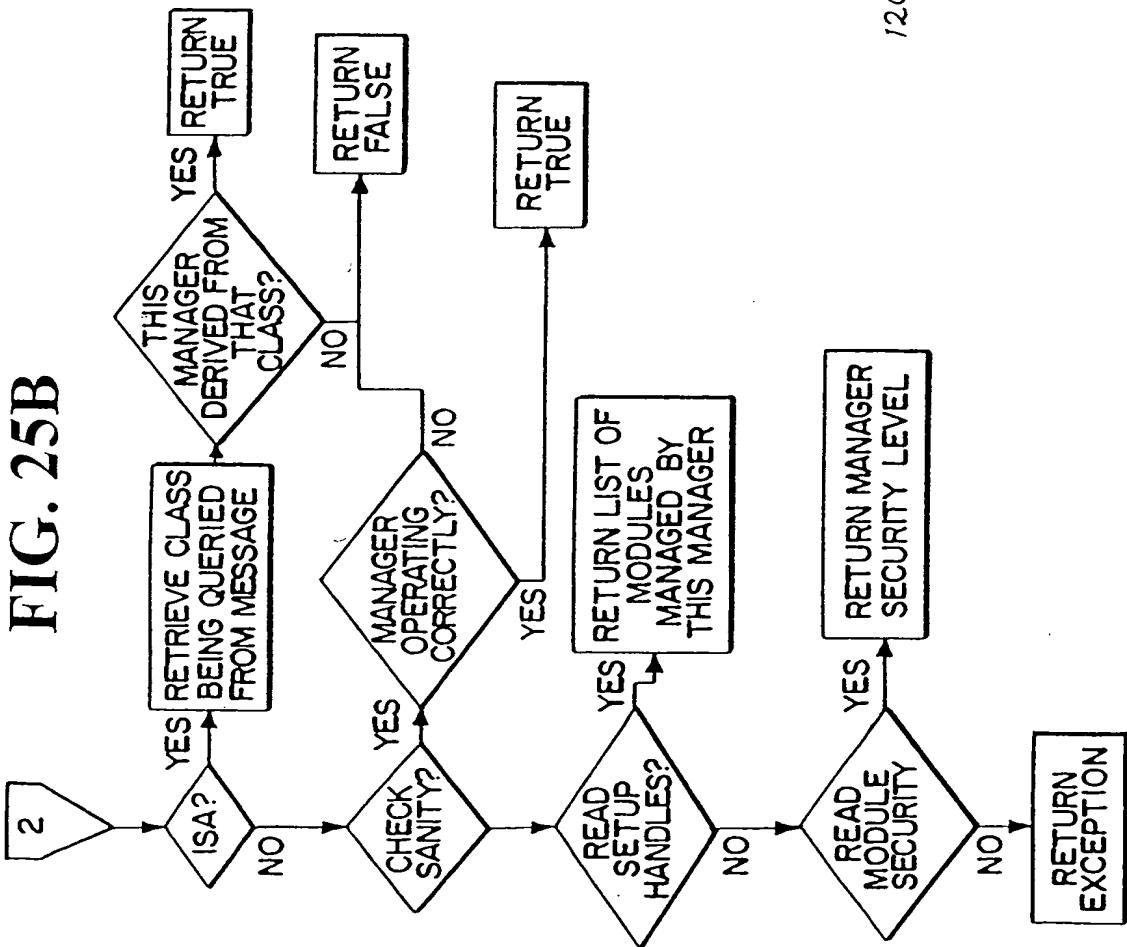


FIG. 26

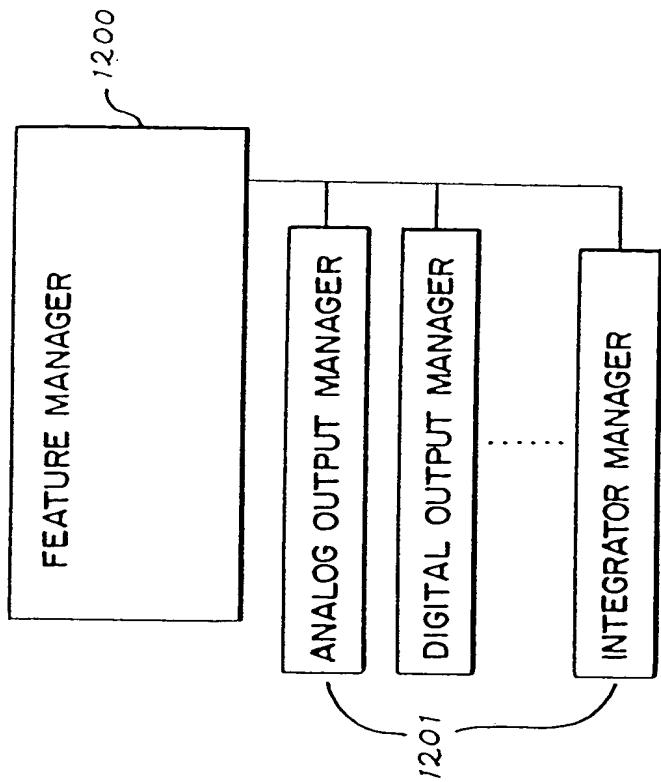


FIG. 26A

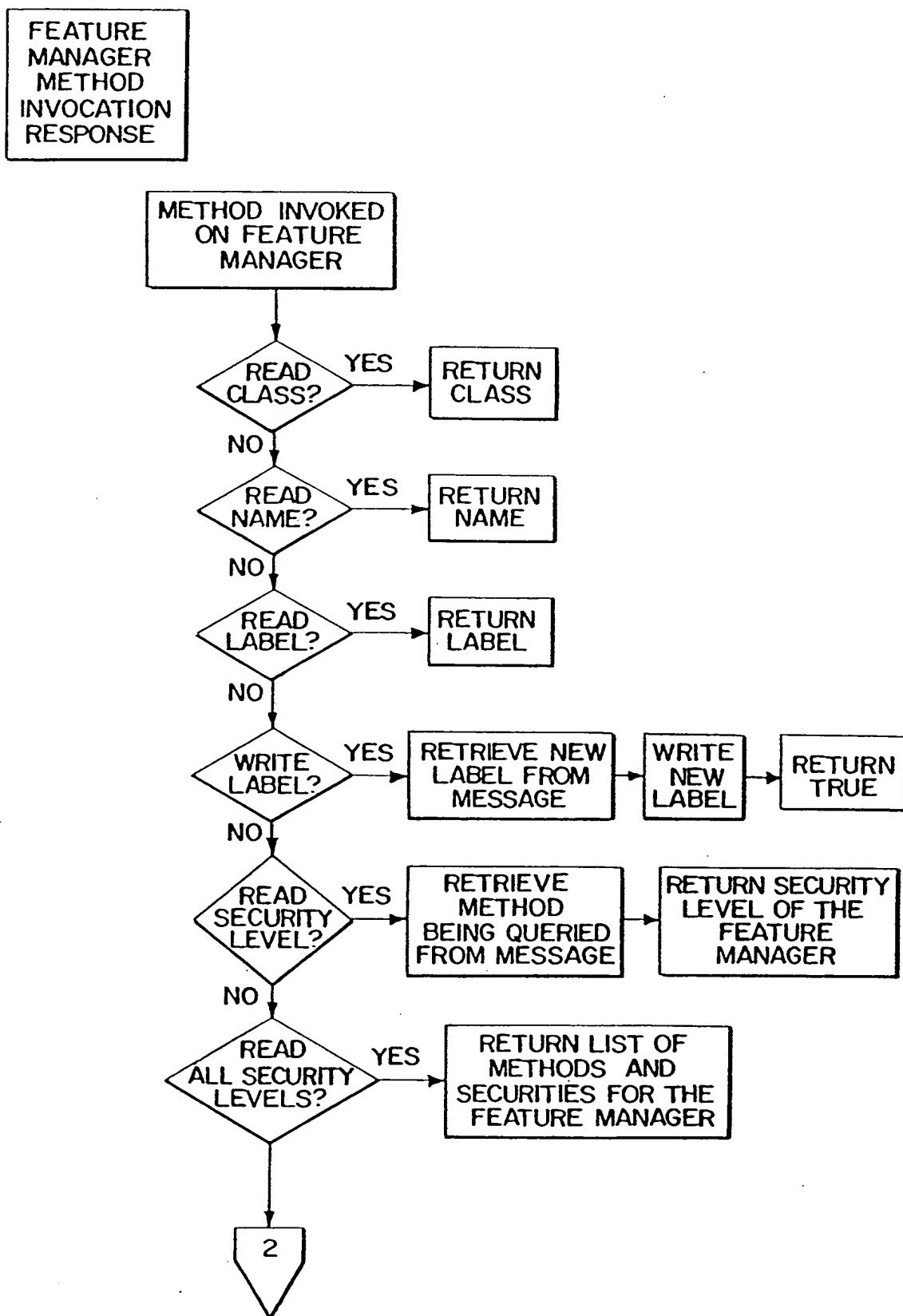
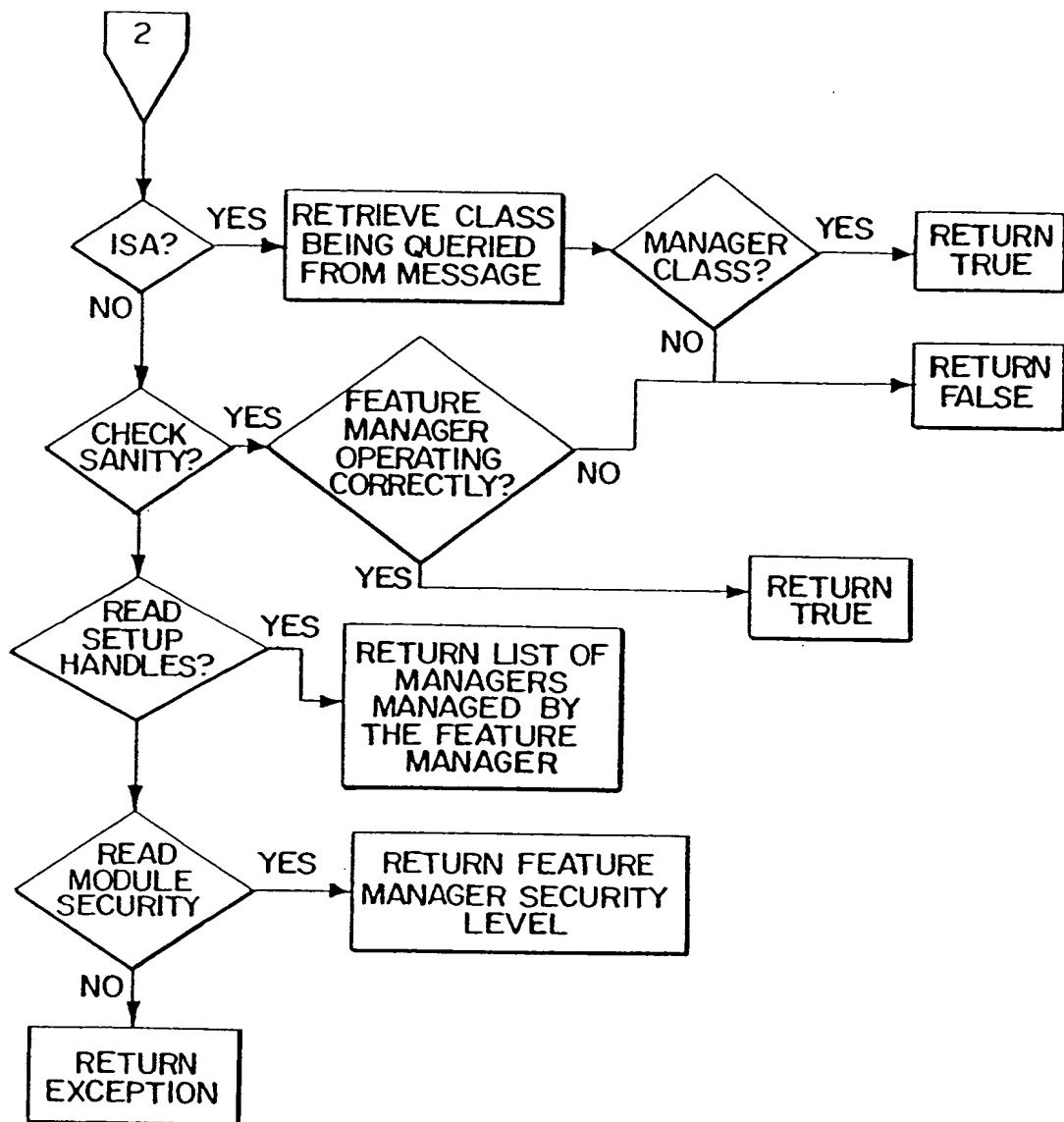


FIG. 26B



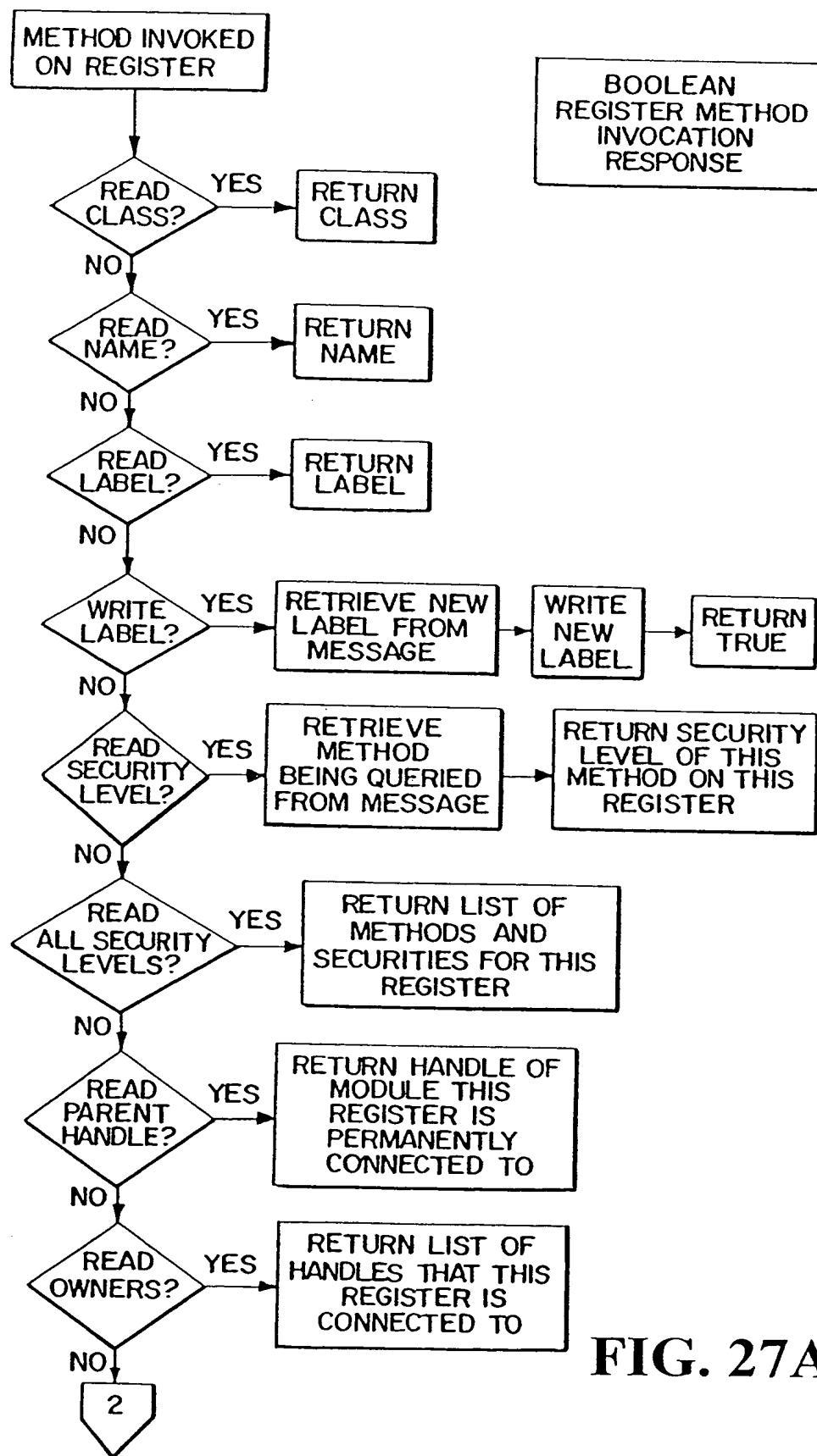


FIG. 27A

FIG. 27B

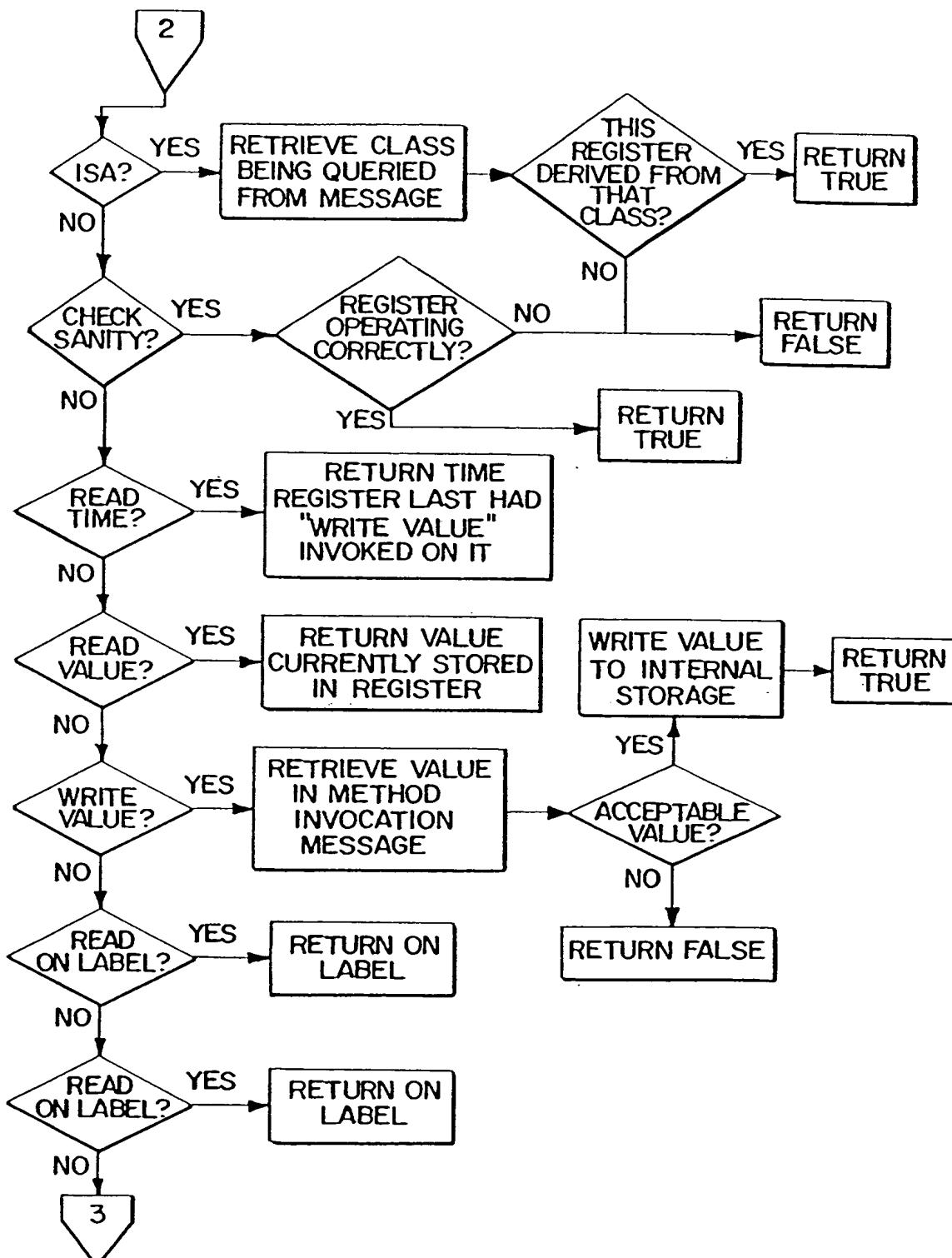


FIG. 27C

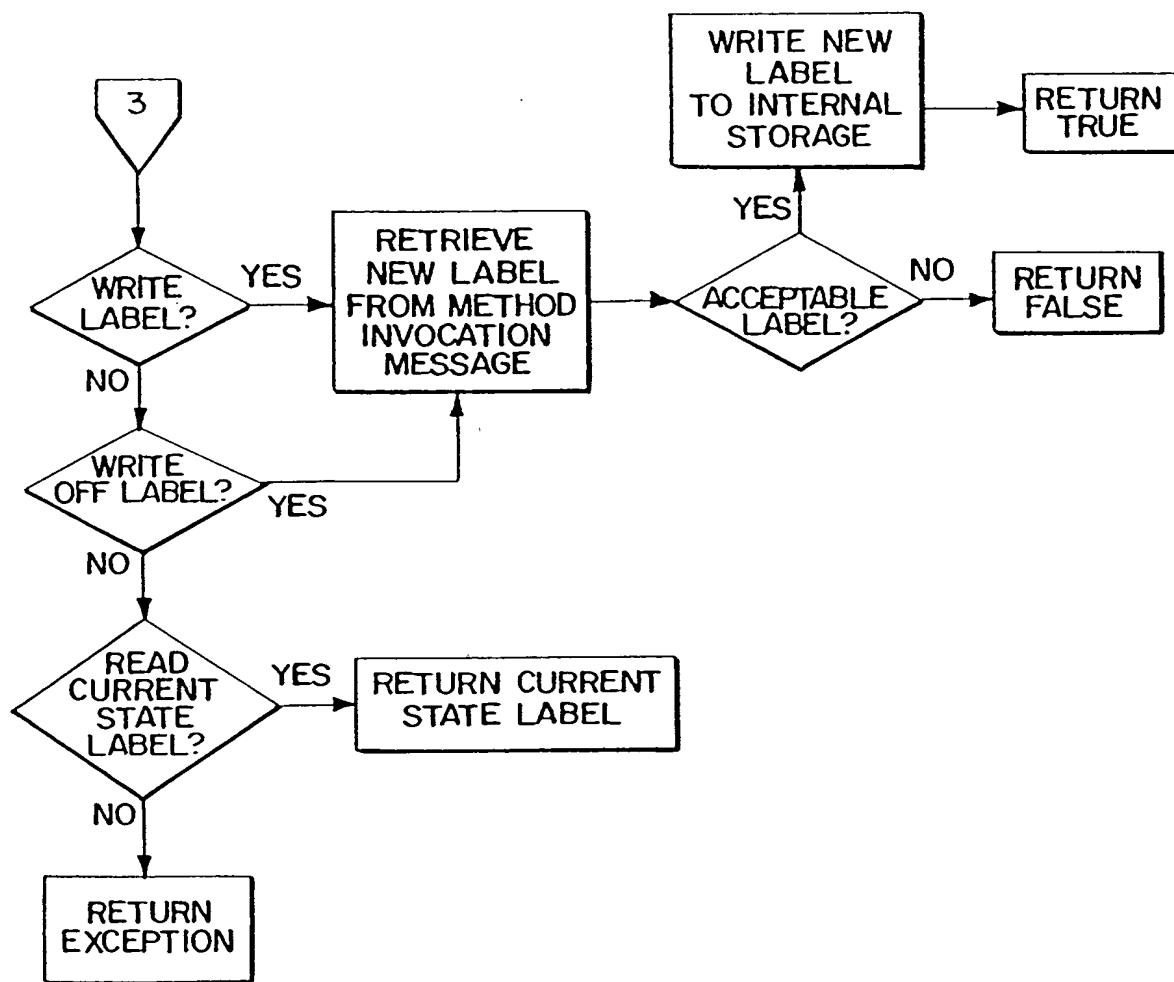


FIG. 28A

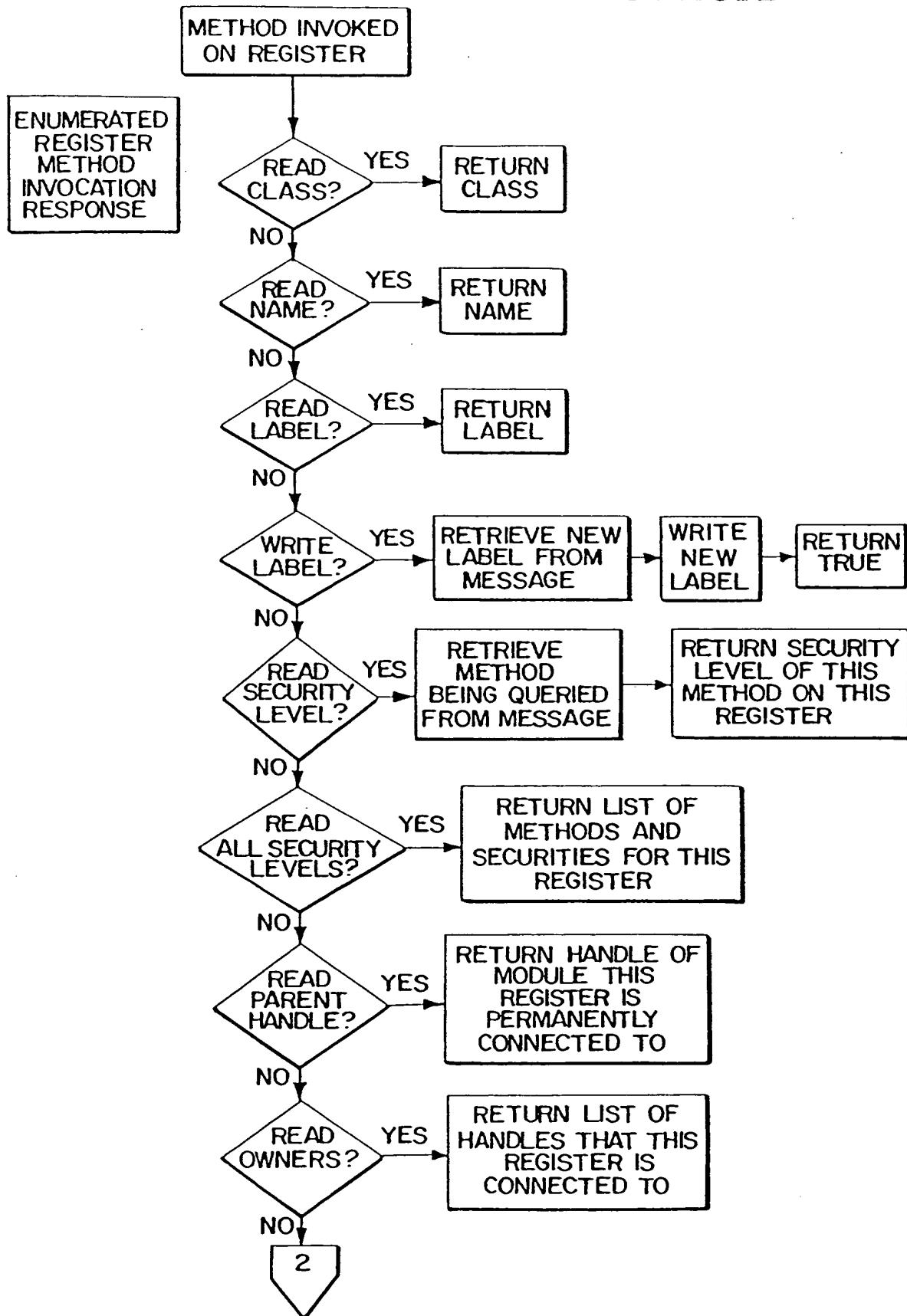


FIG. 28B

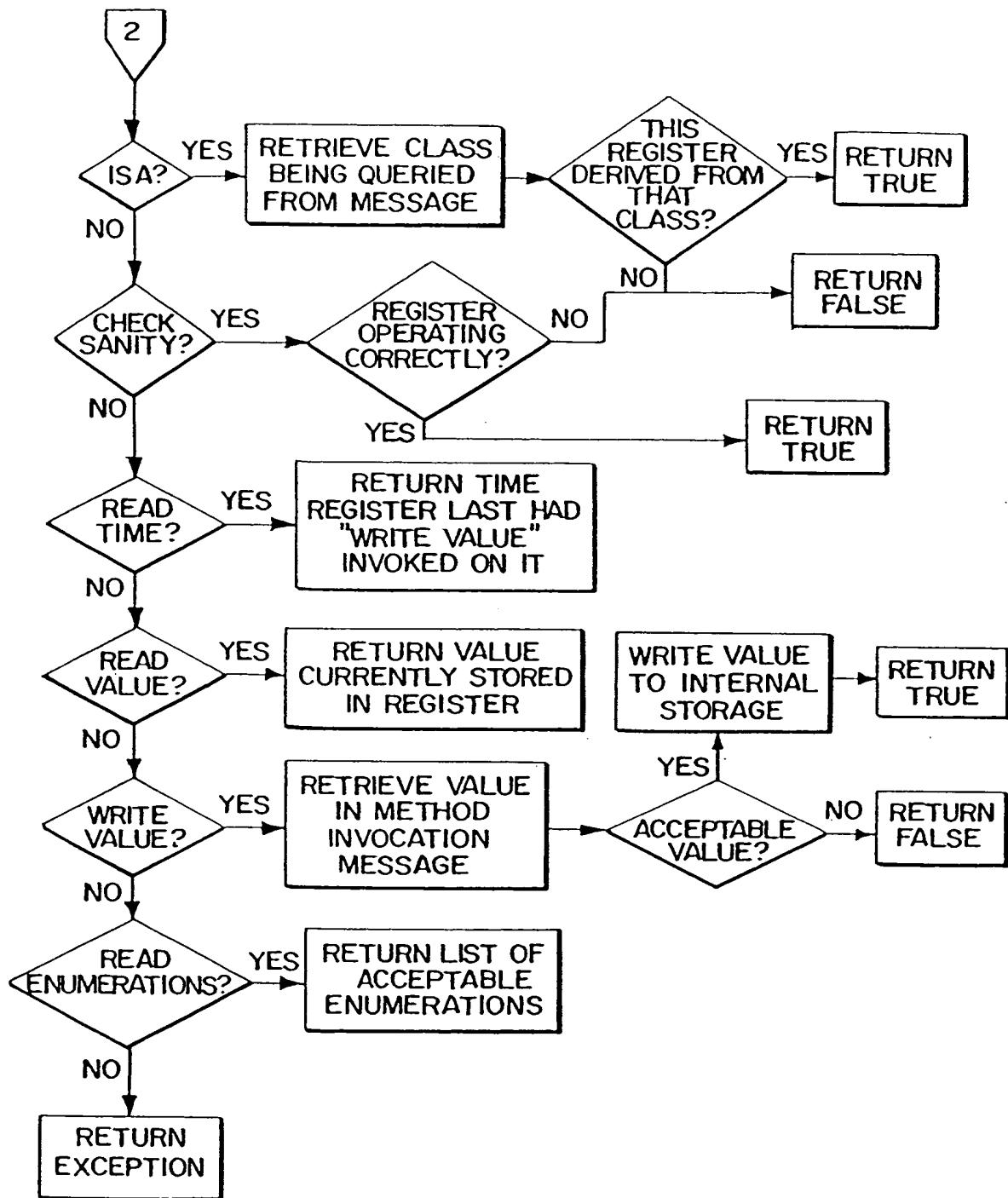
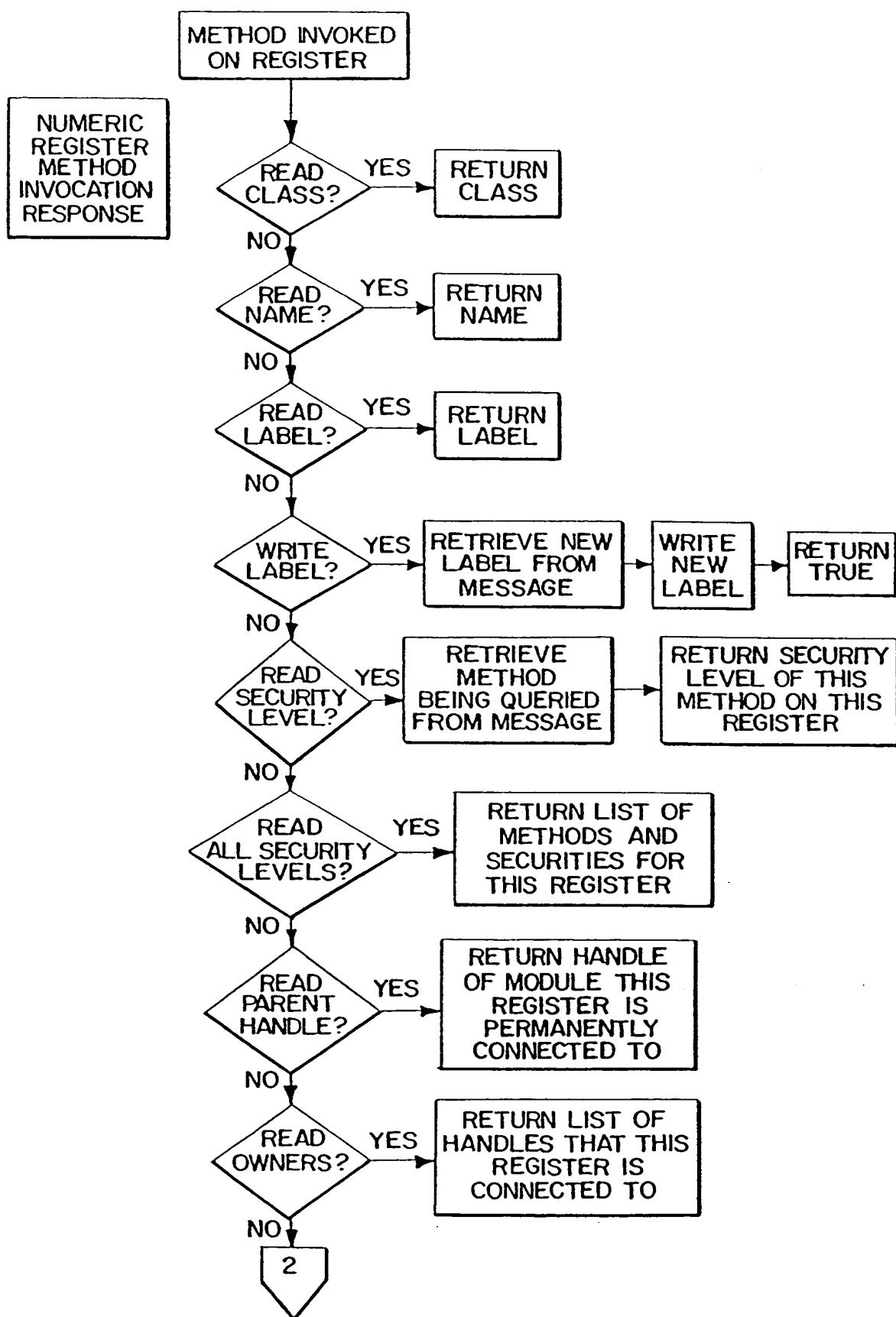


FIG. 29A



61 87 207

FIG. 29B

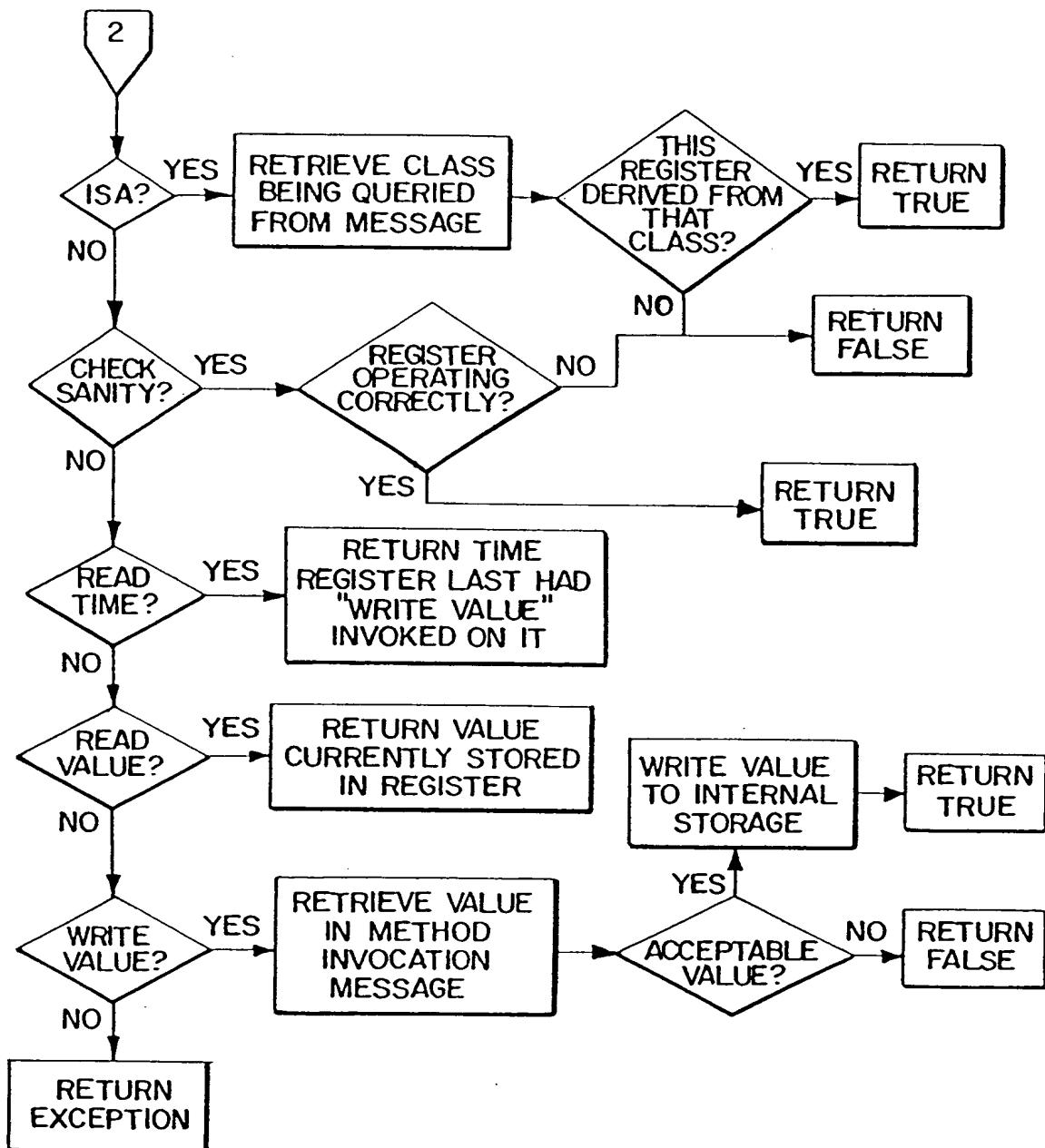


FIG. 30A

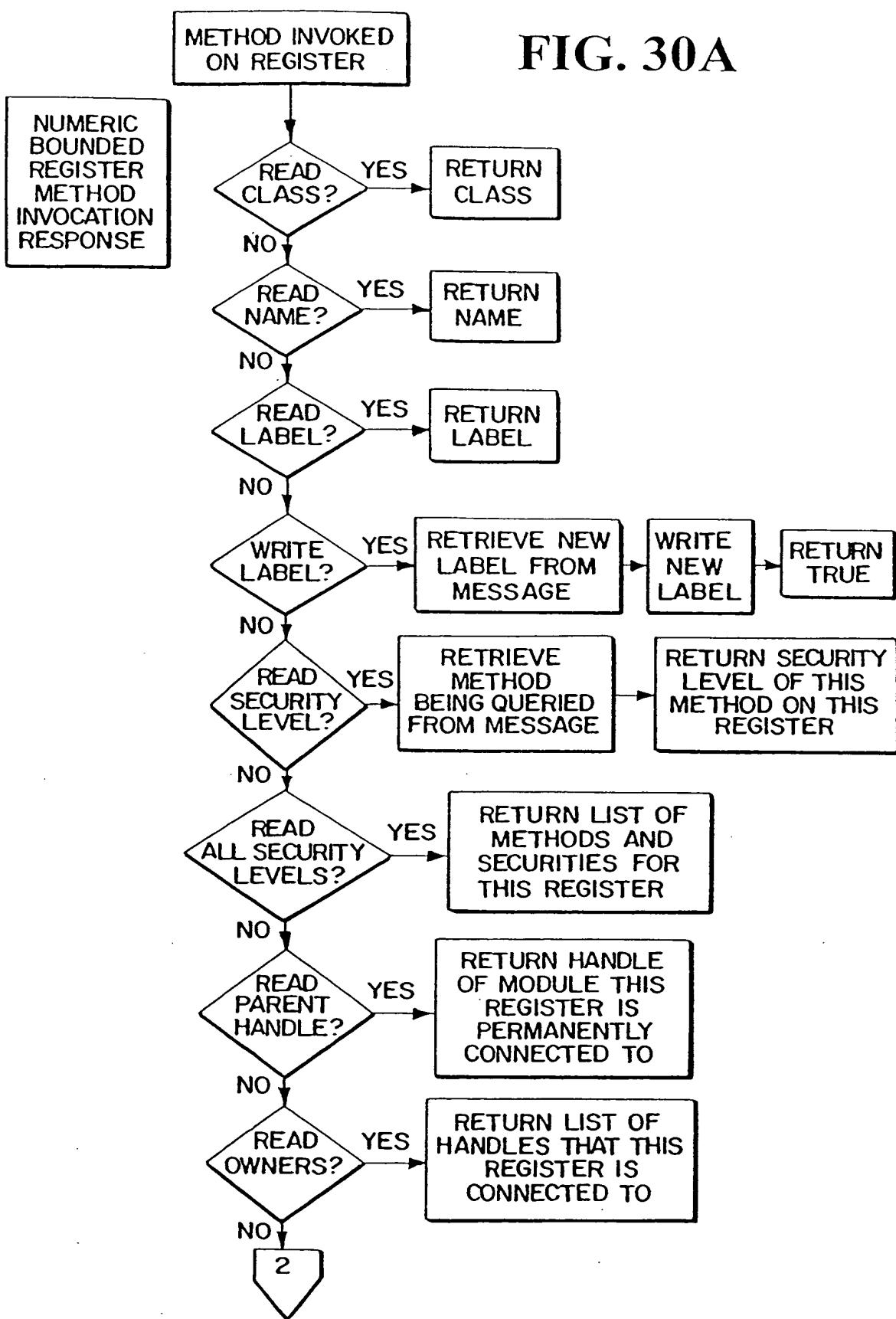
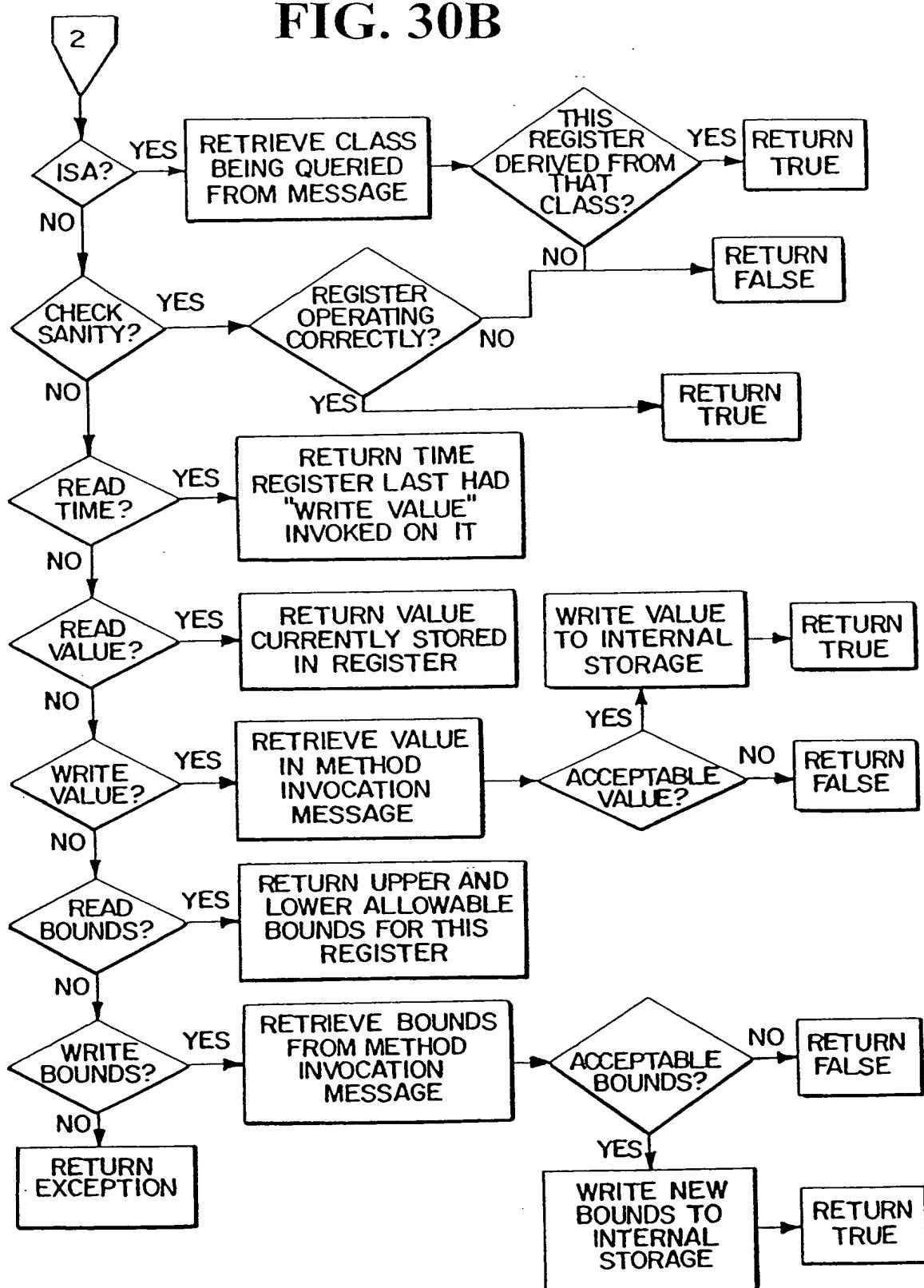
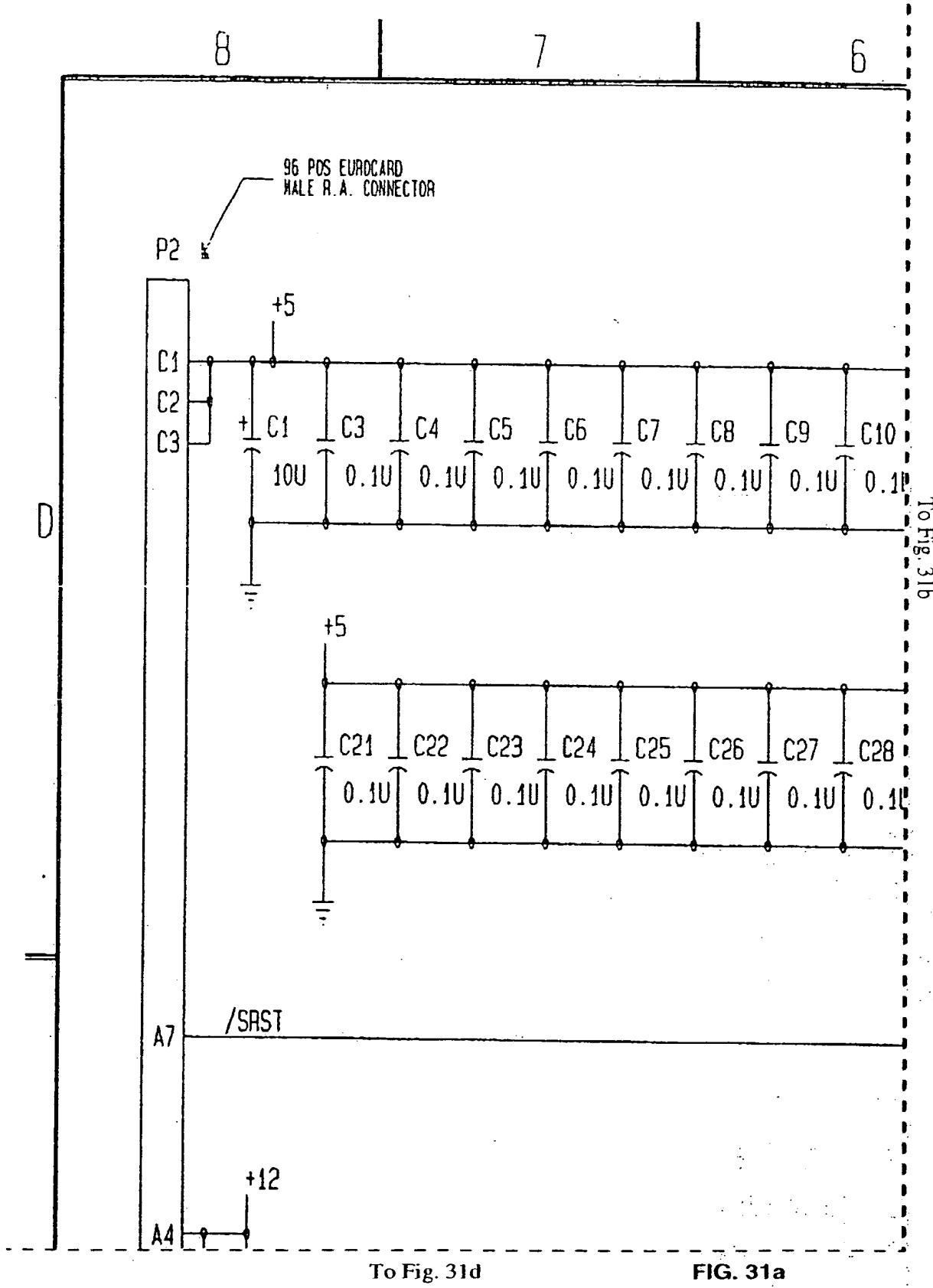


FIG. 30B

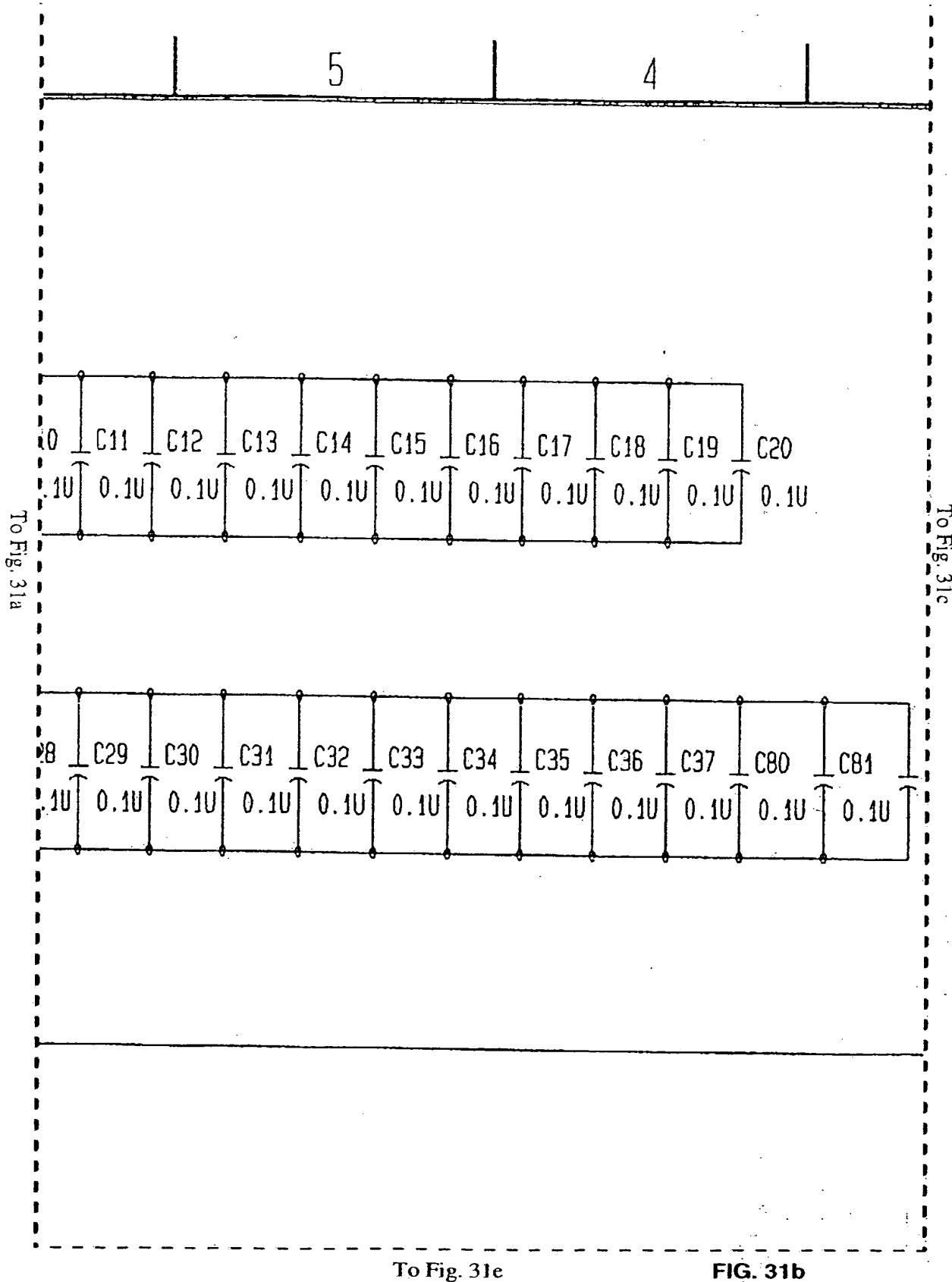


Inventor(s): Ronald C. Hart  
Attorney Docket No. 6270/76, Serial No. 10/068,431

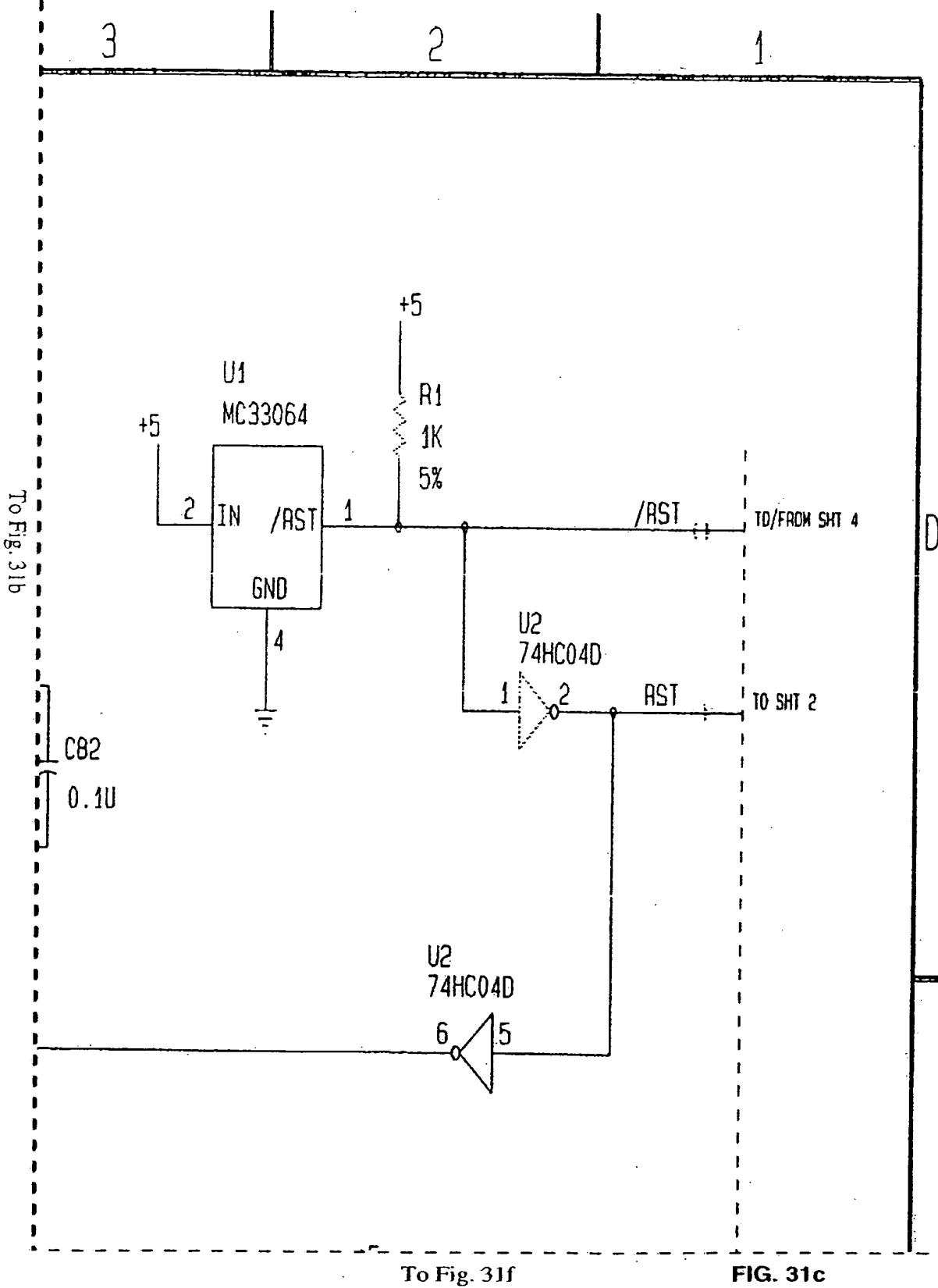
64 ♀ 807



65 07 207



66 8 207

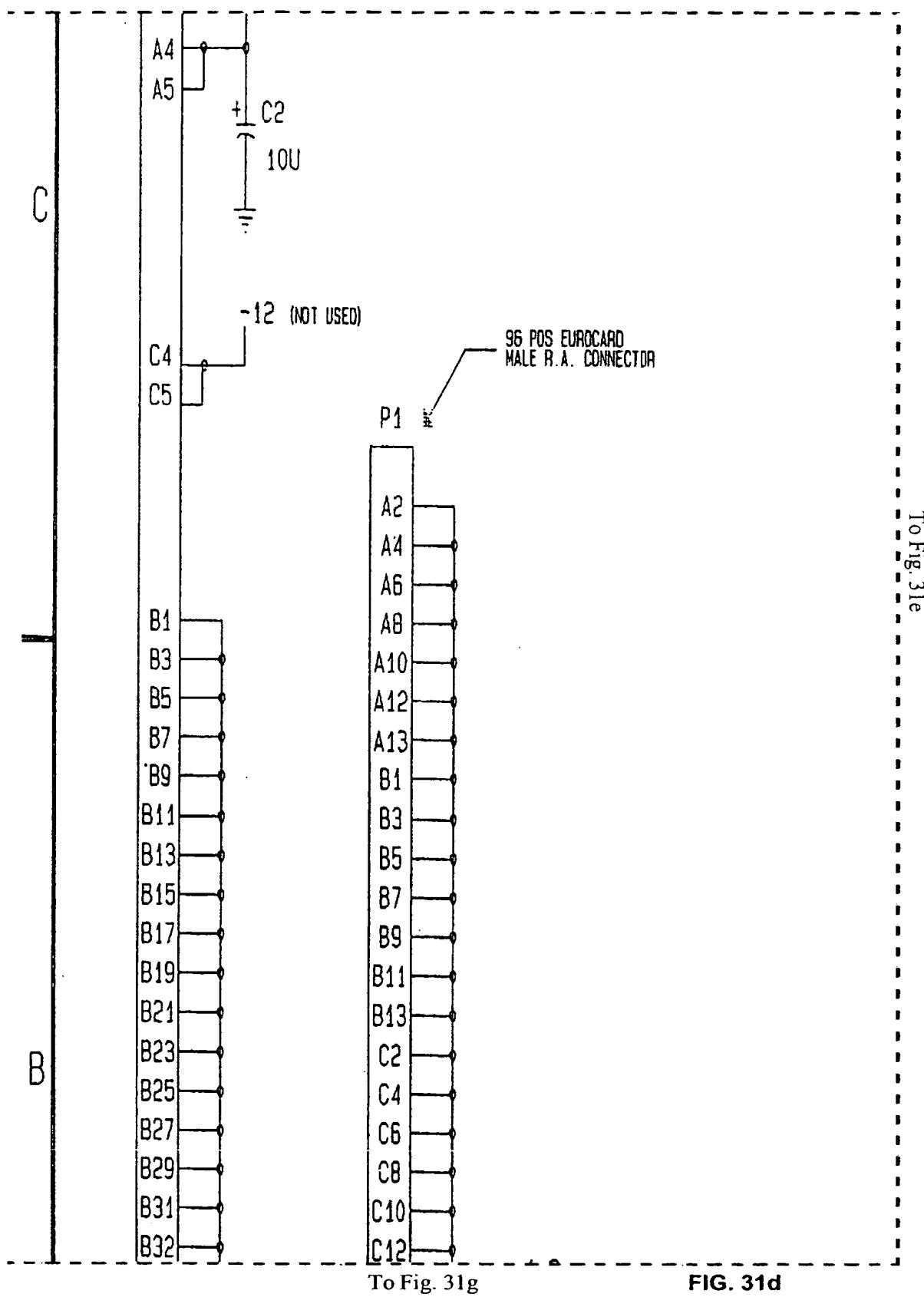


To Fig. 31f

FIG. 31c

6708 207

To Fig. 31a



Patent Application for: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND  
MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

68 8207

To Fig. 31b

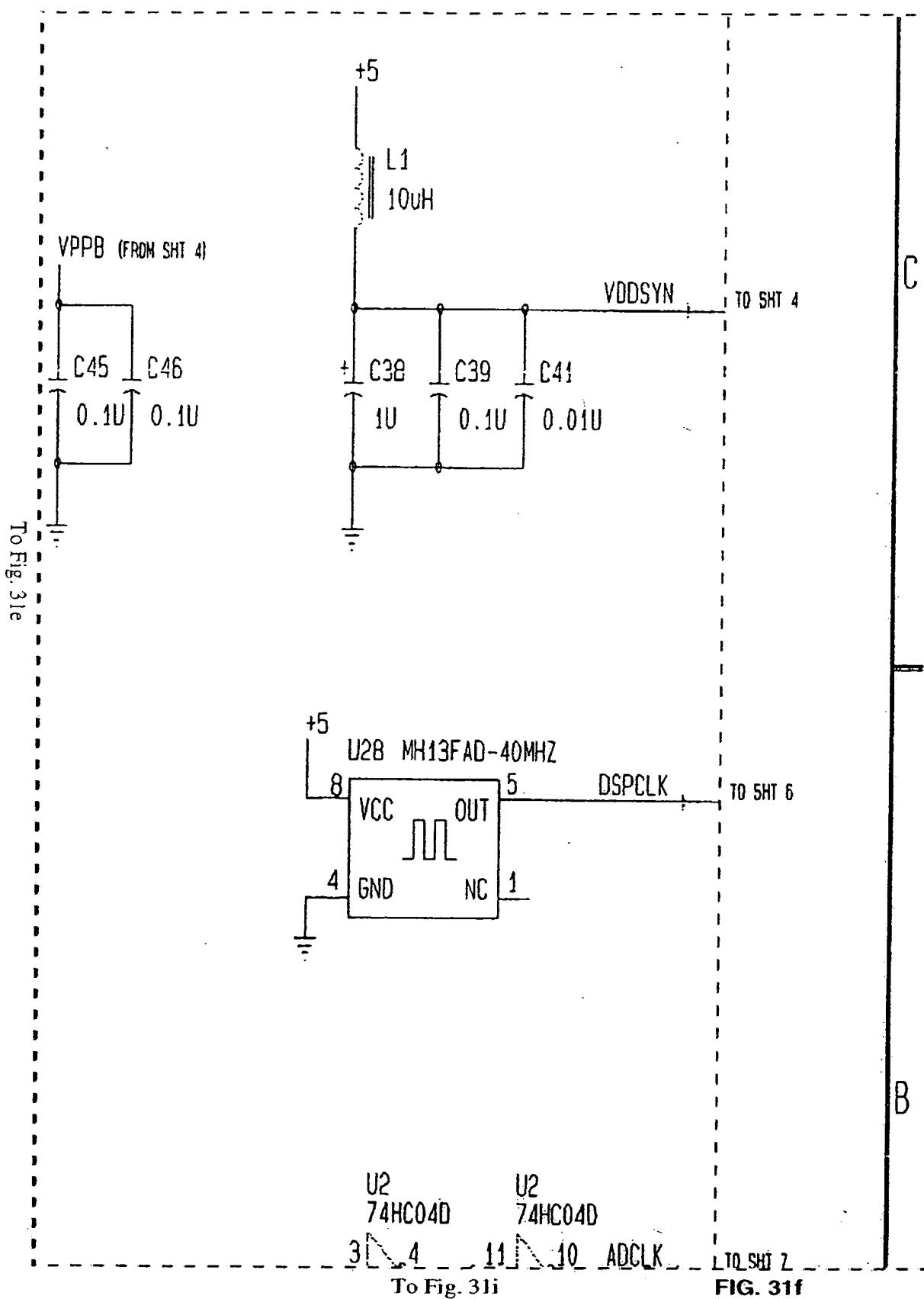
To Fig. 31d

To Fig. 31h

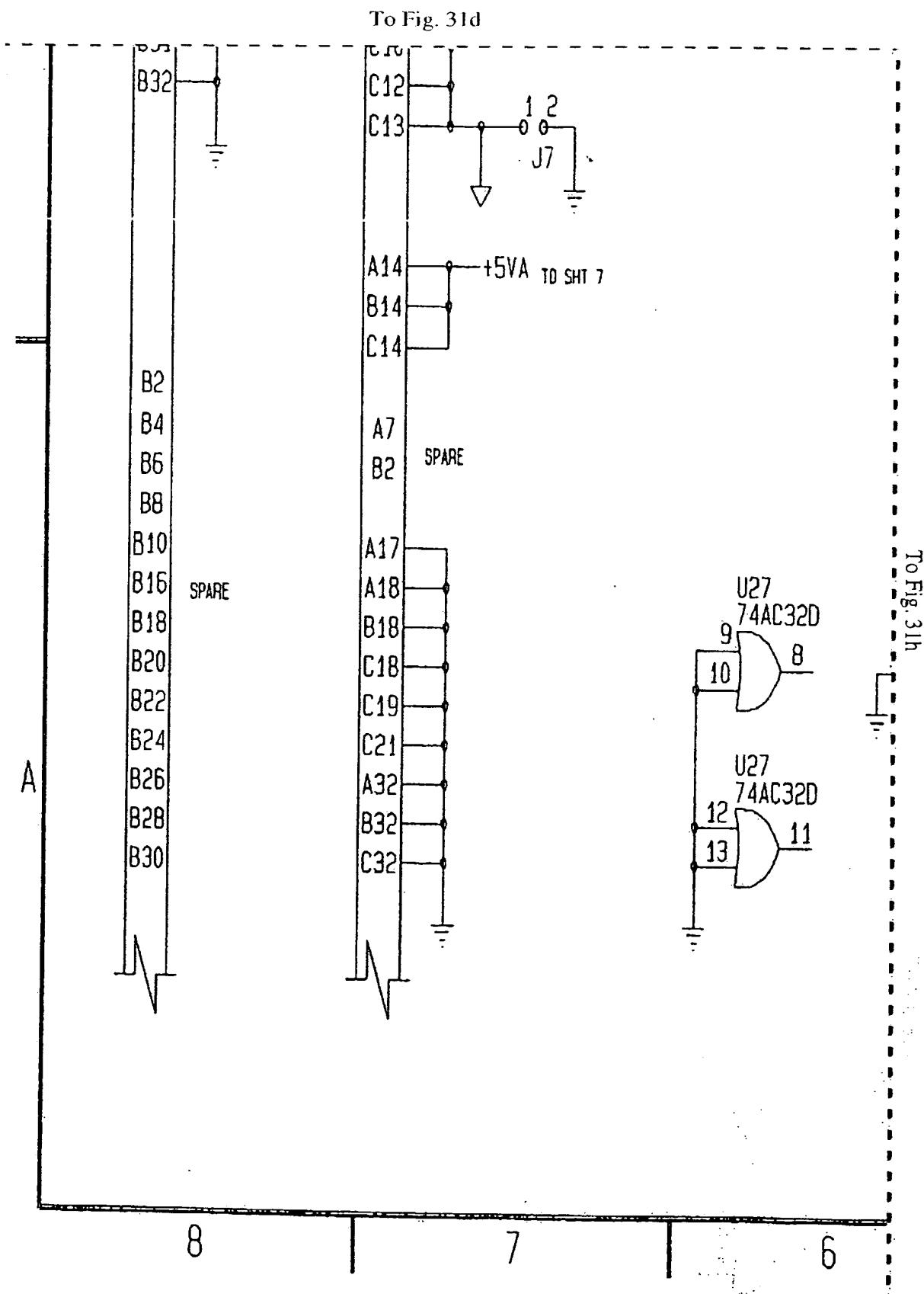
FIG. 31e

To Fig. 31f

To Fig. 31c



706207



71 8 207

To Fig. 31e

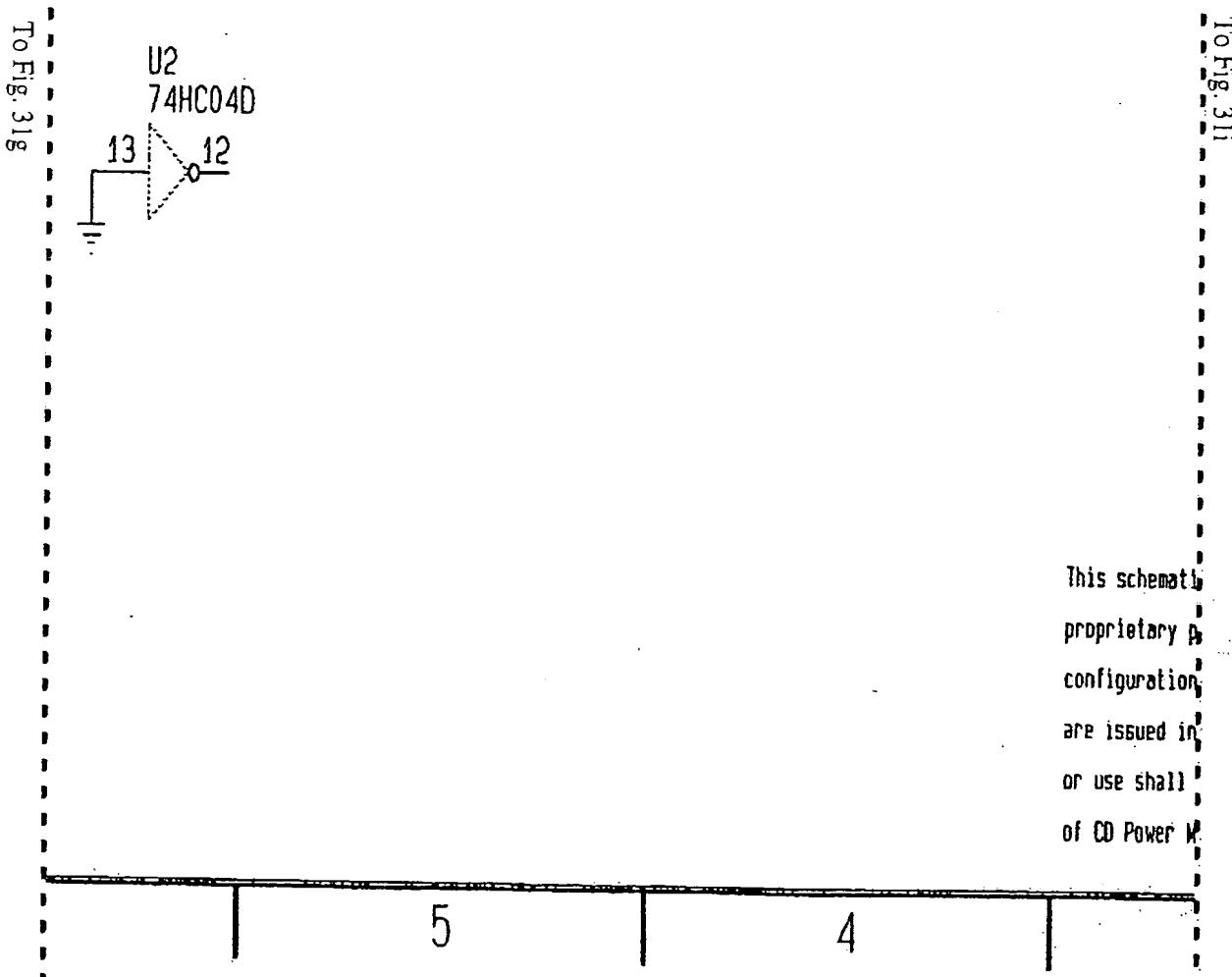
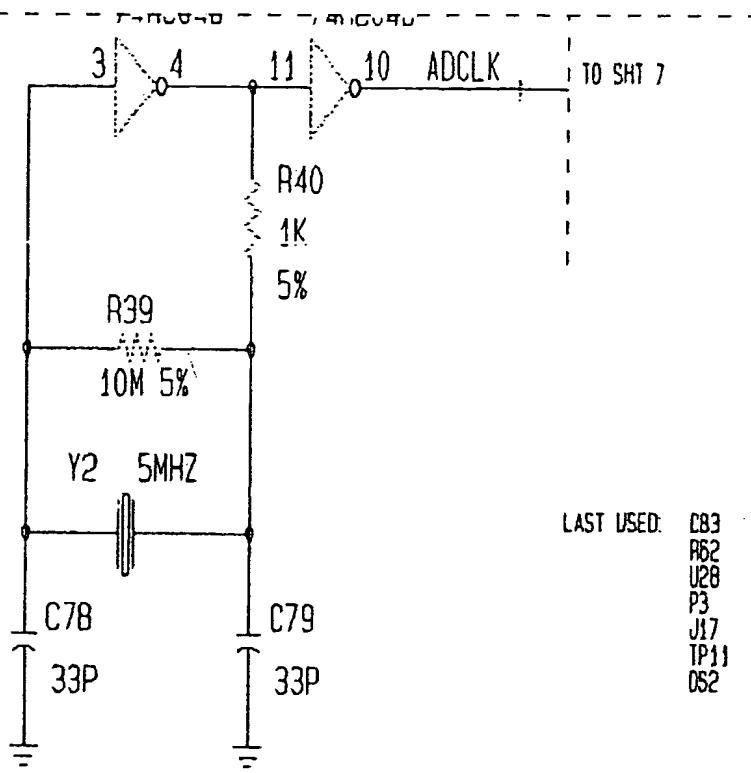


FIG. 31h

70 8207

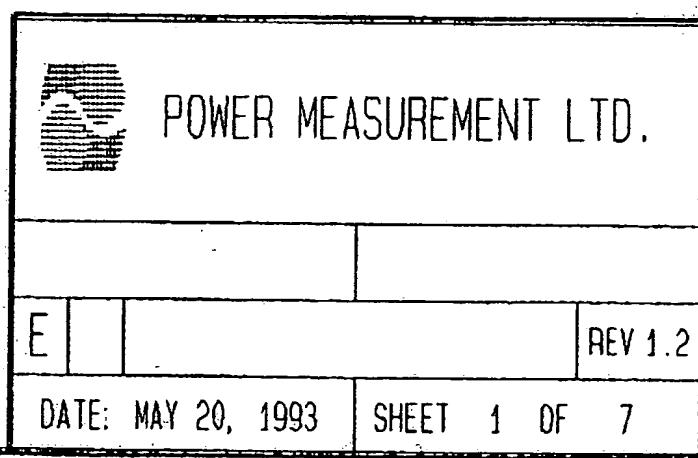
To Fig. 31f



To Fig. 31h

A

All drawings and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.



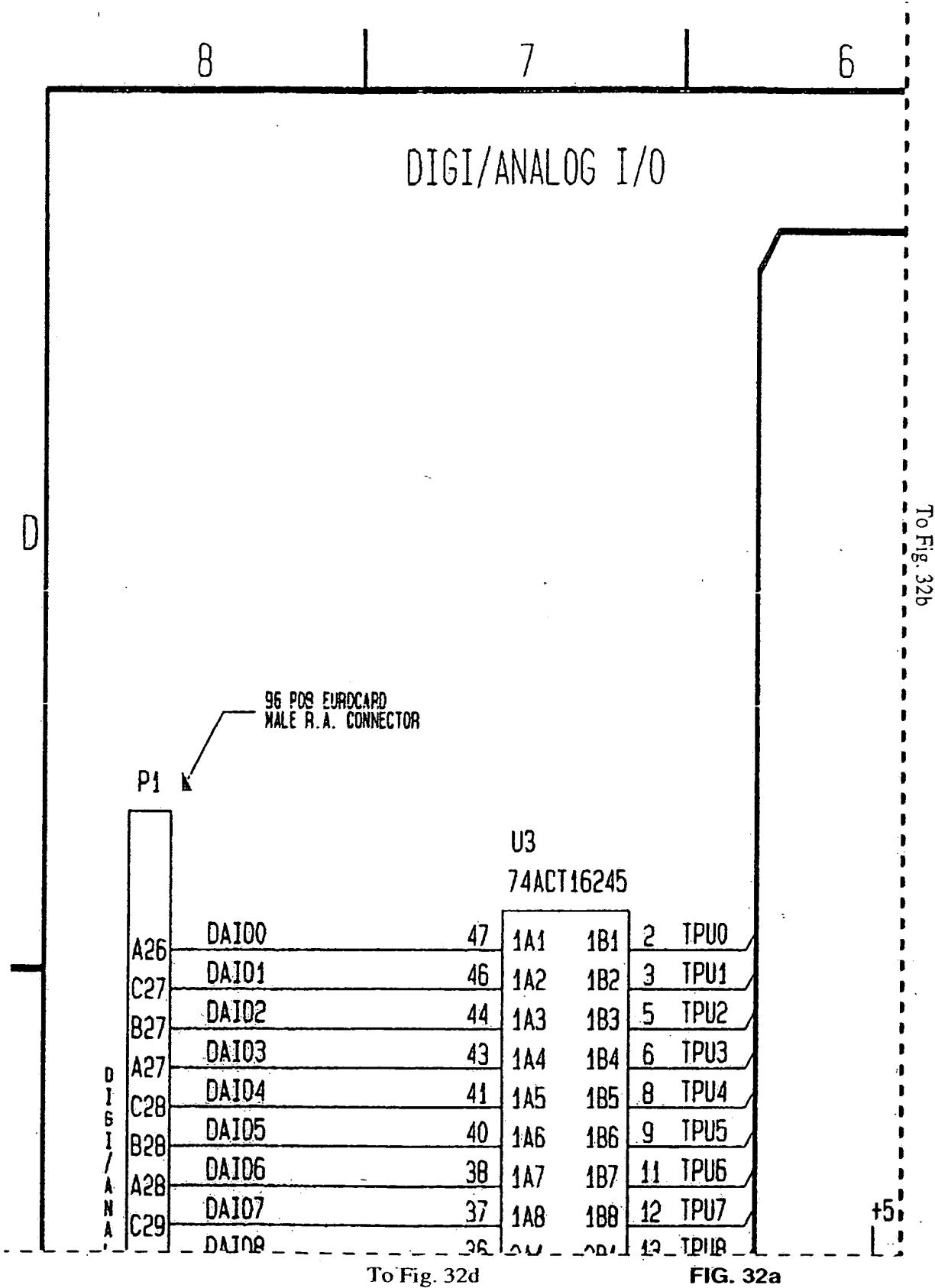
3

2

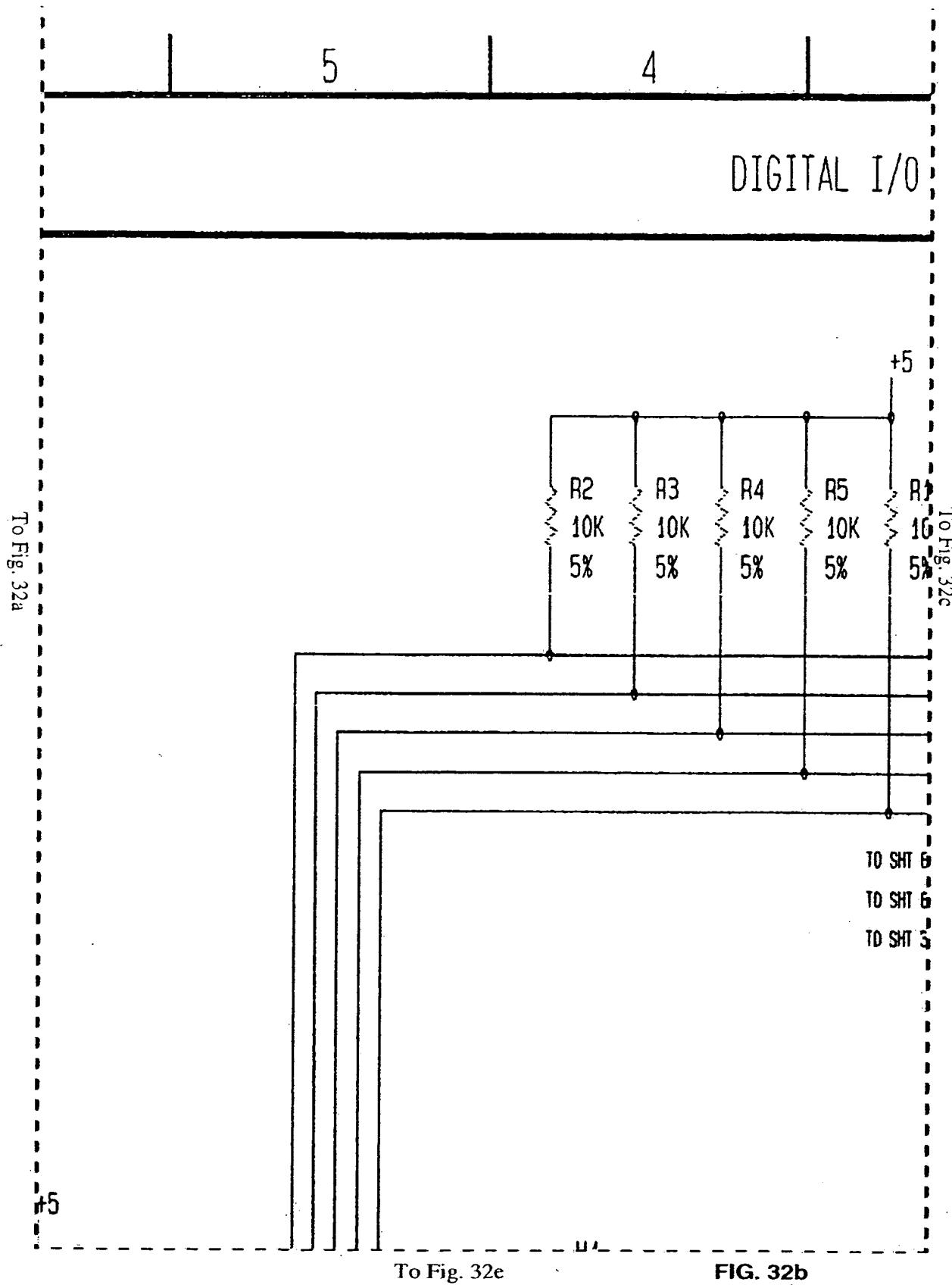
1

FIG. 31i

738207



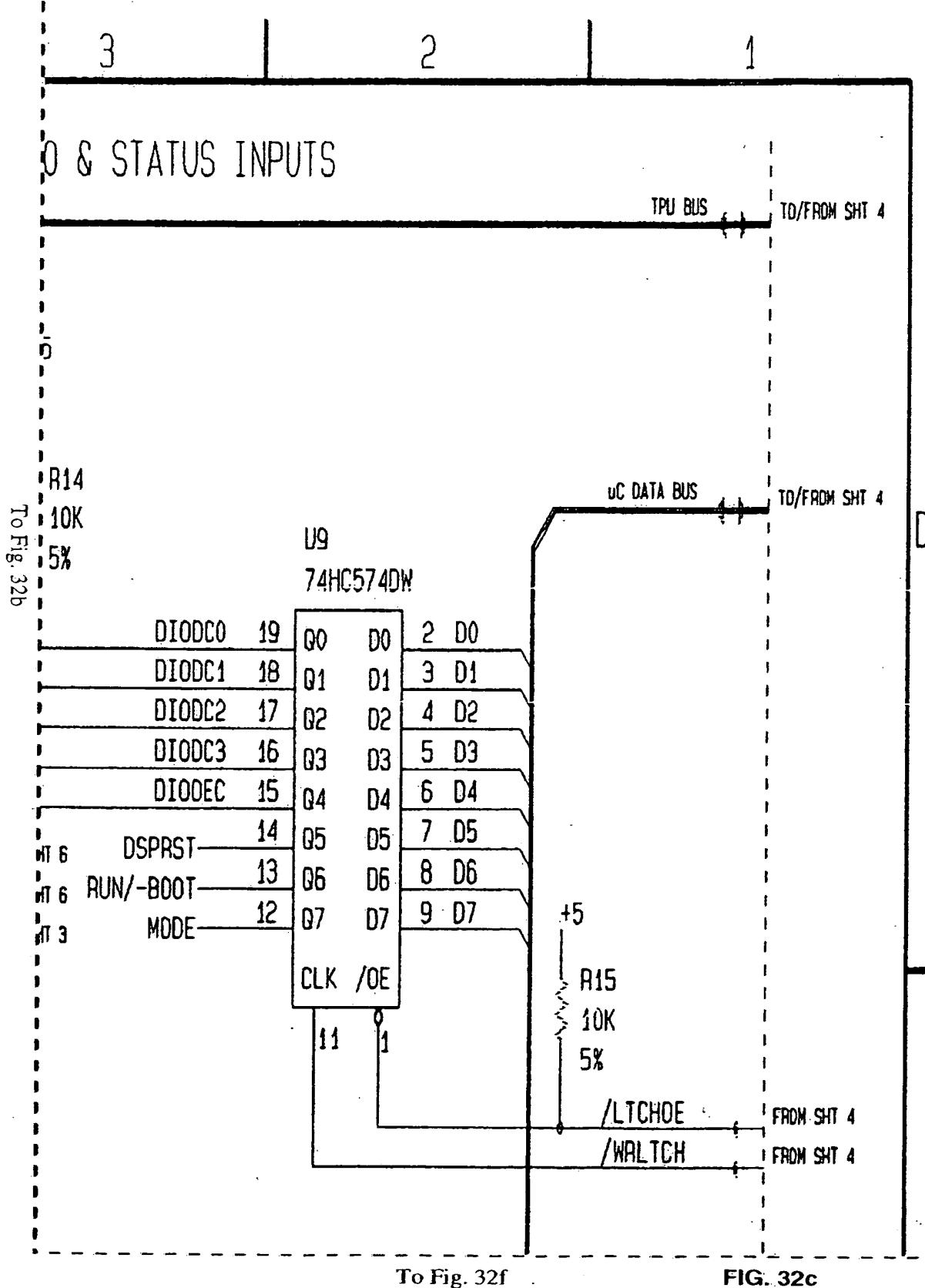
14 08 207



To Fig. 32e

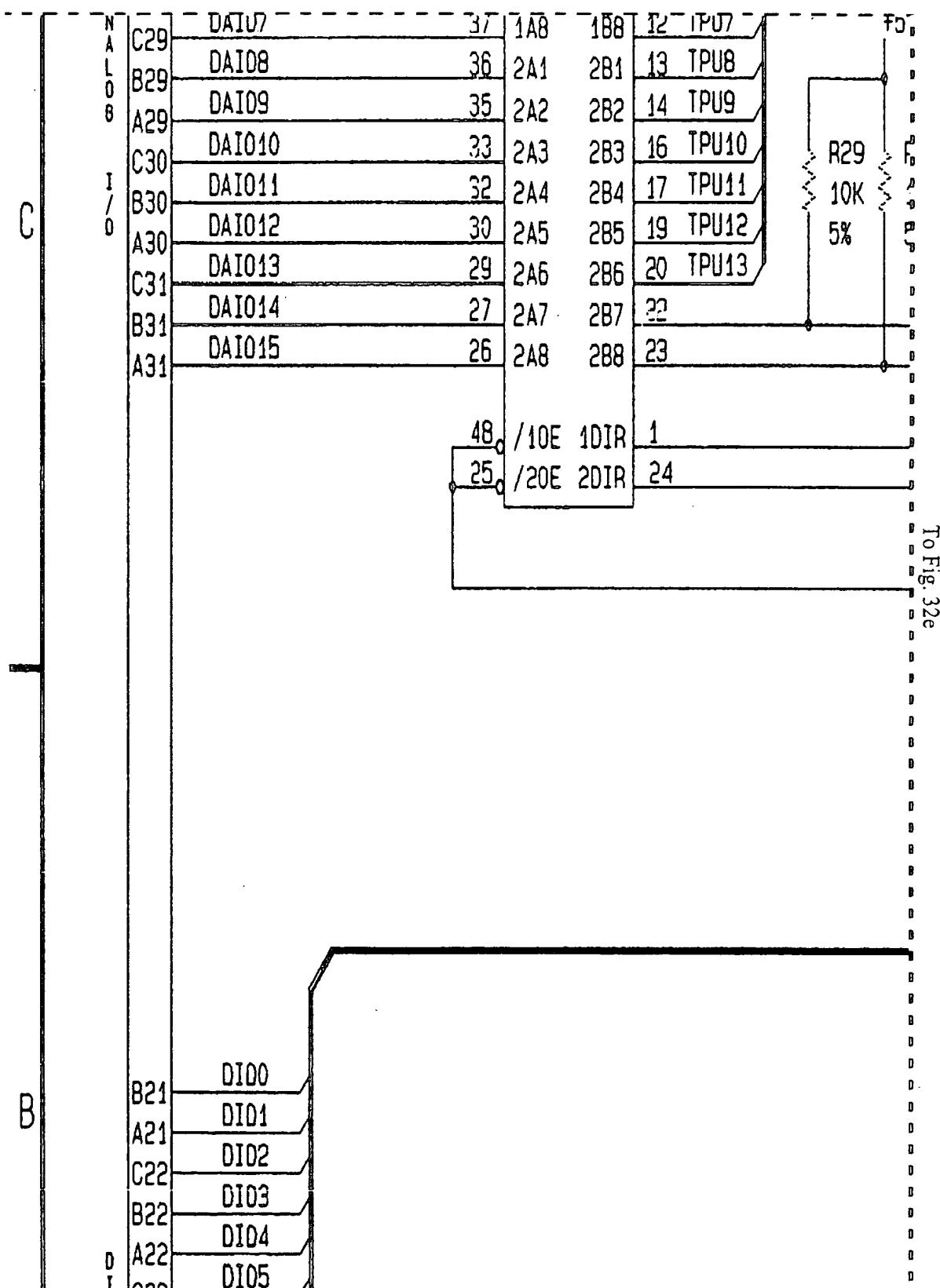
FIG. 32b

76 8 207



76 08 207

To Fig. 32a

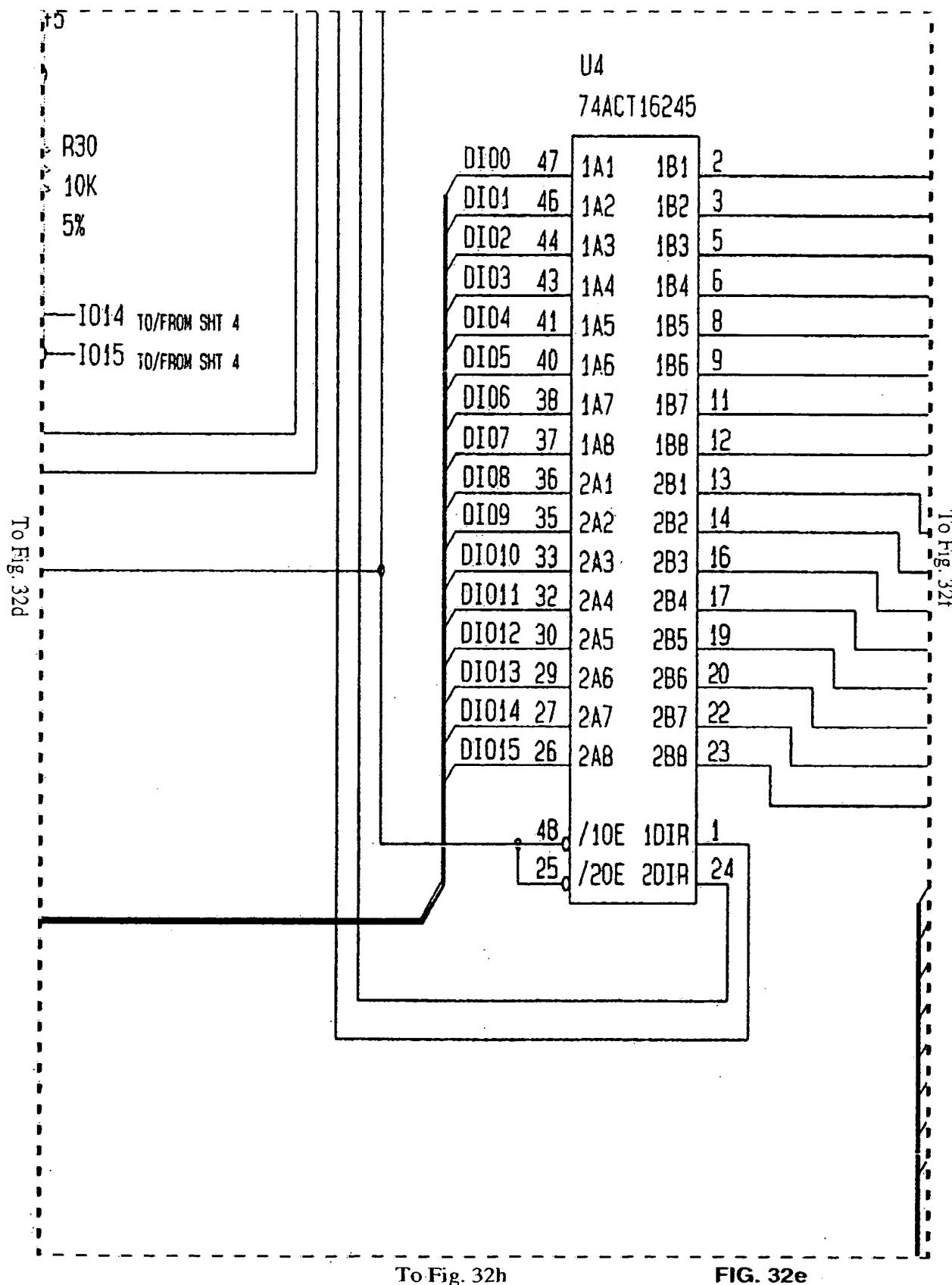


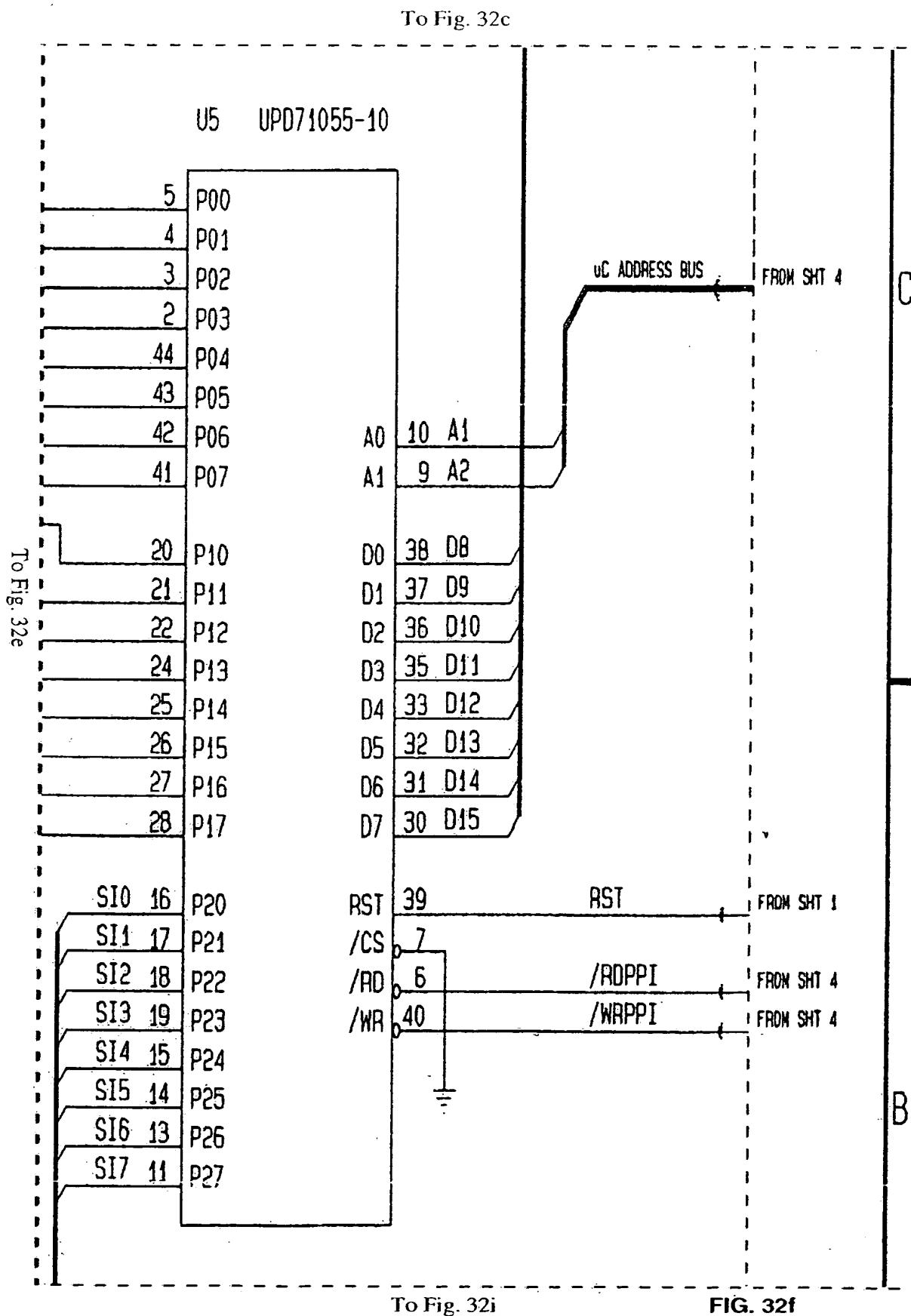
To Fig. 32g

FIG. 32d

77 06 207

To Fig. 32b





79 8 207

To Fig. 32d

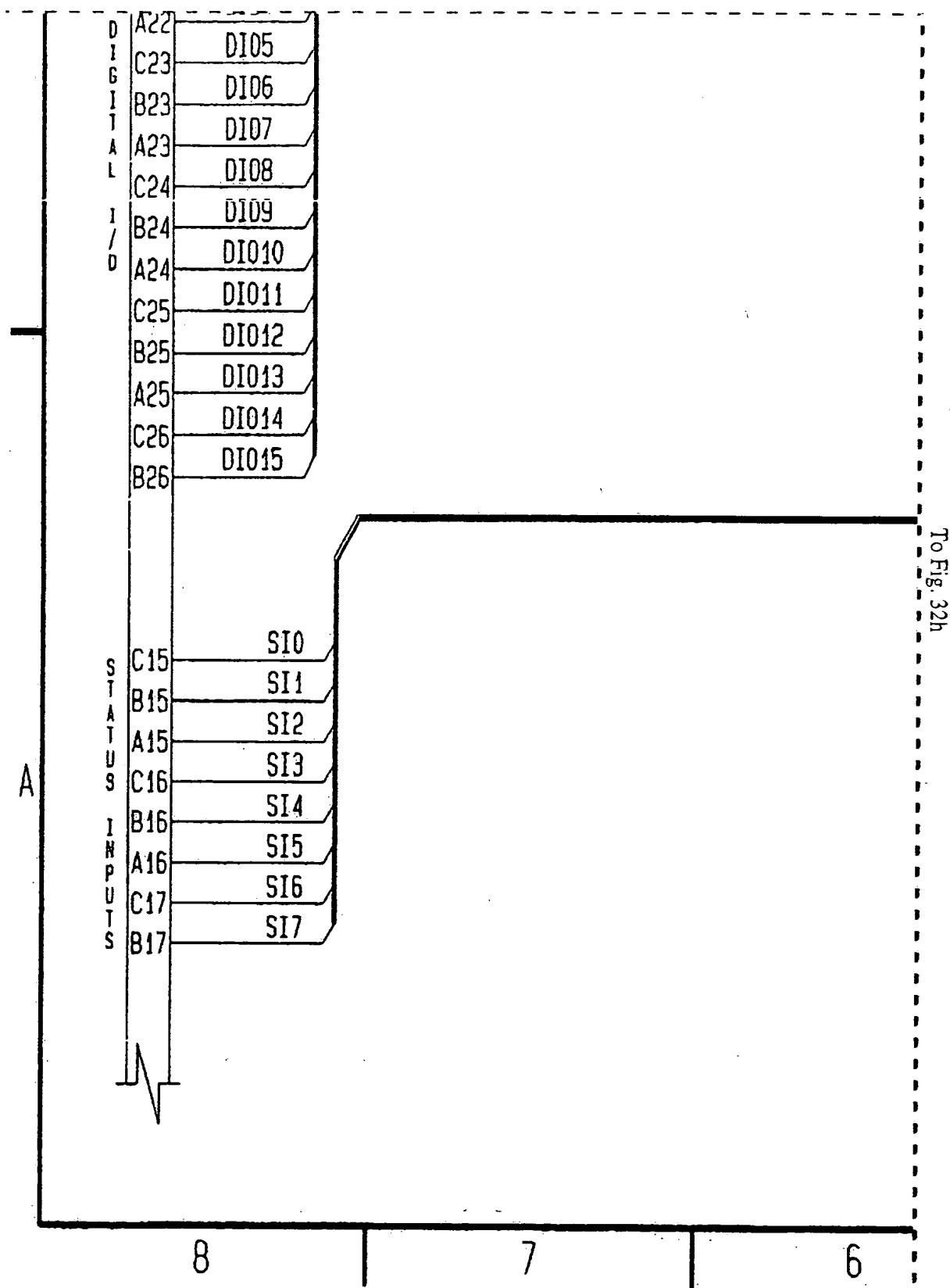
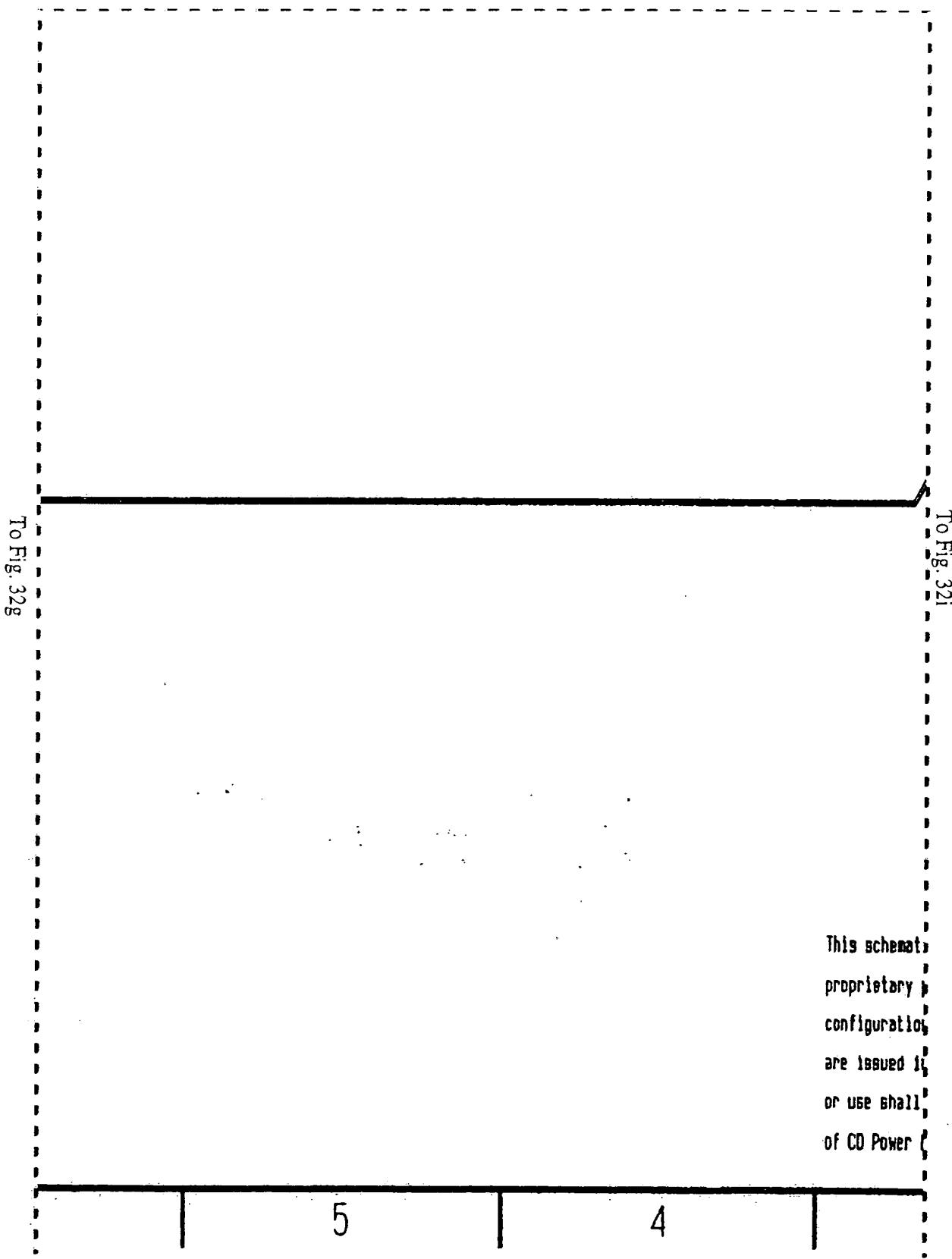


FIG. 32g

To Fig. 32e



5

4

FIG. 32h

Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

81 58 207

To Fig. 32f

To Fig. 32h

A

tic and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.

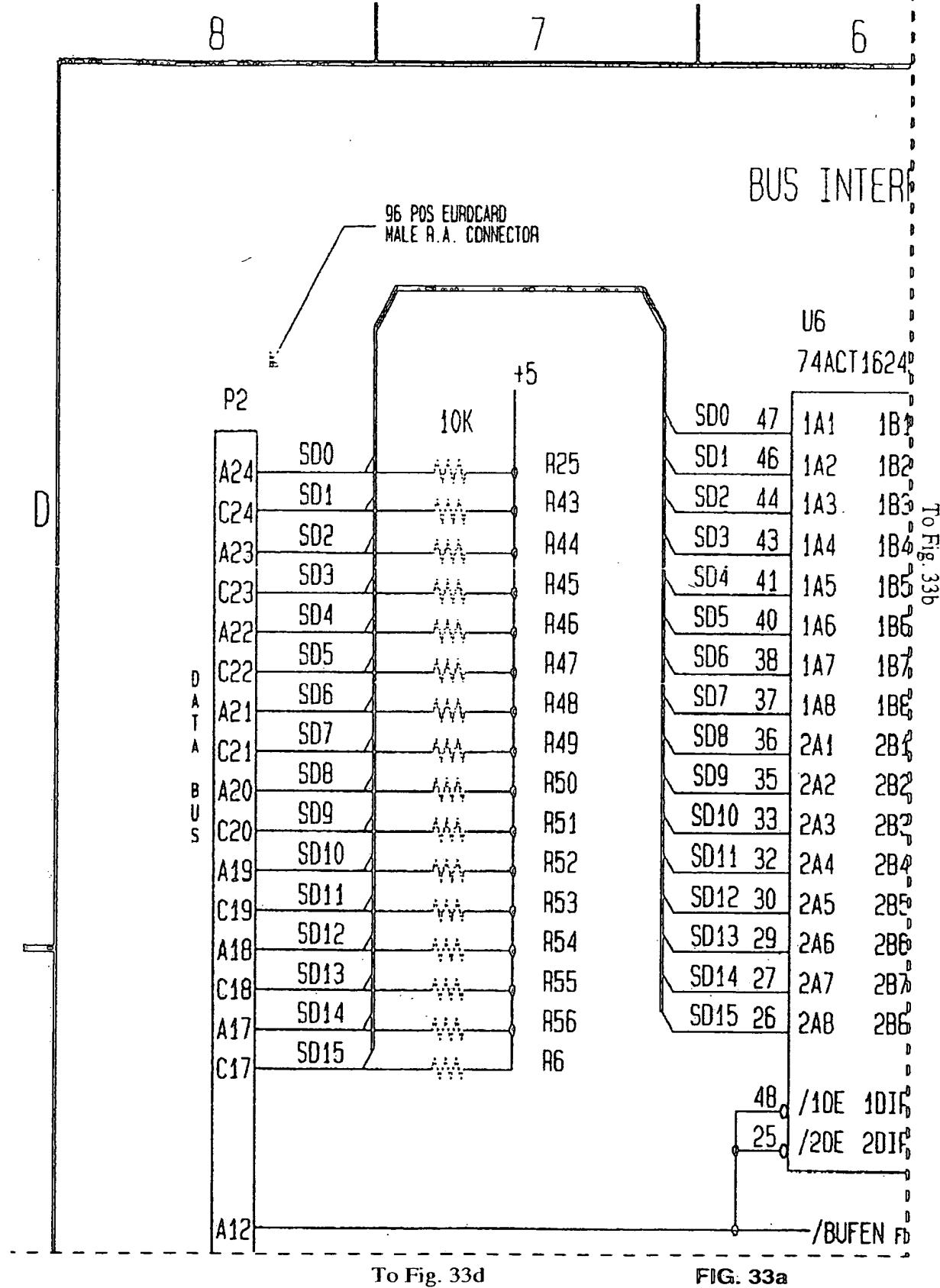
		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: MAY 10, 1993		SHEET 2 OF 7	

3

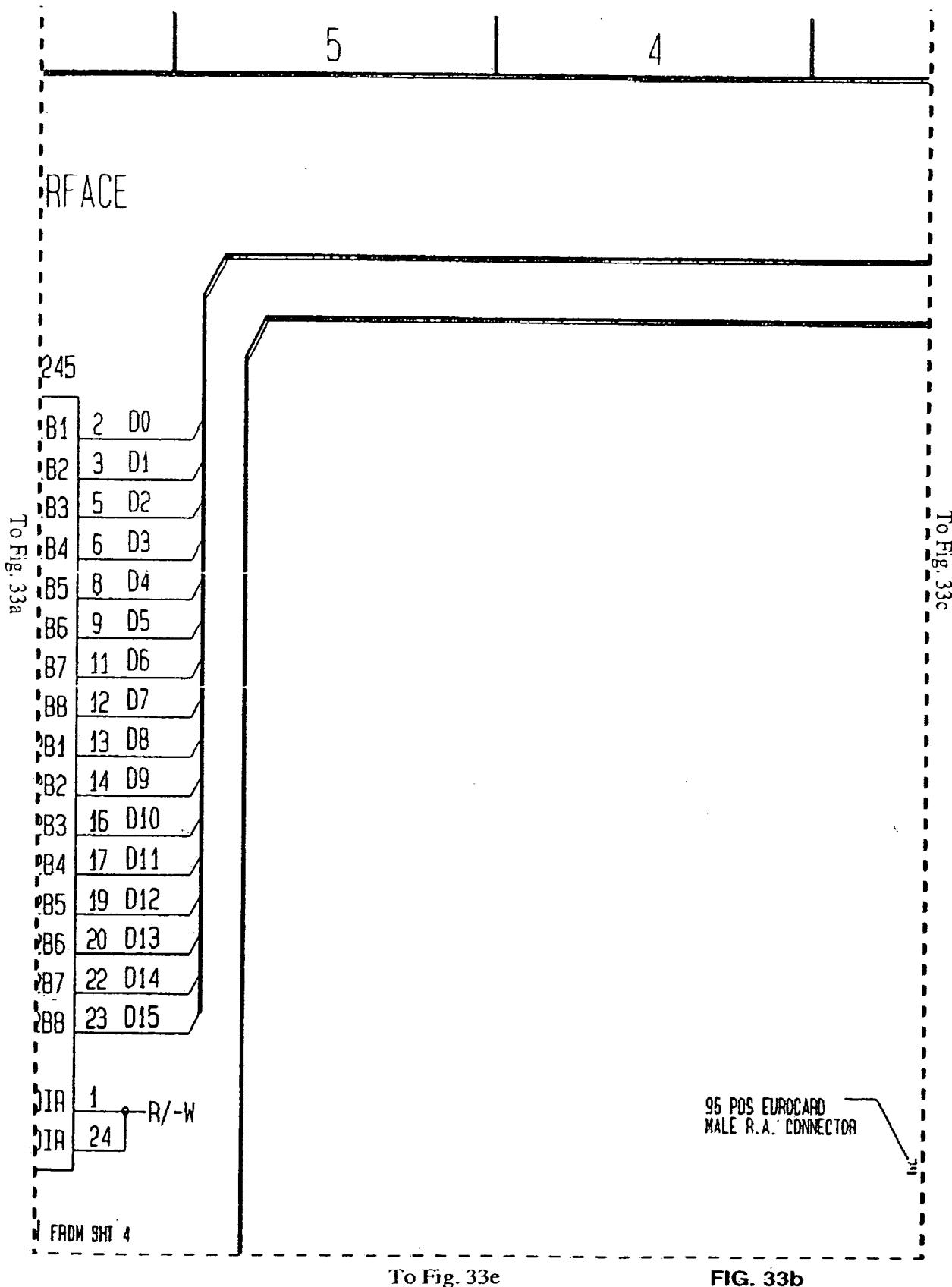
2

1

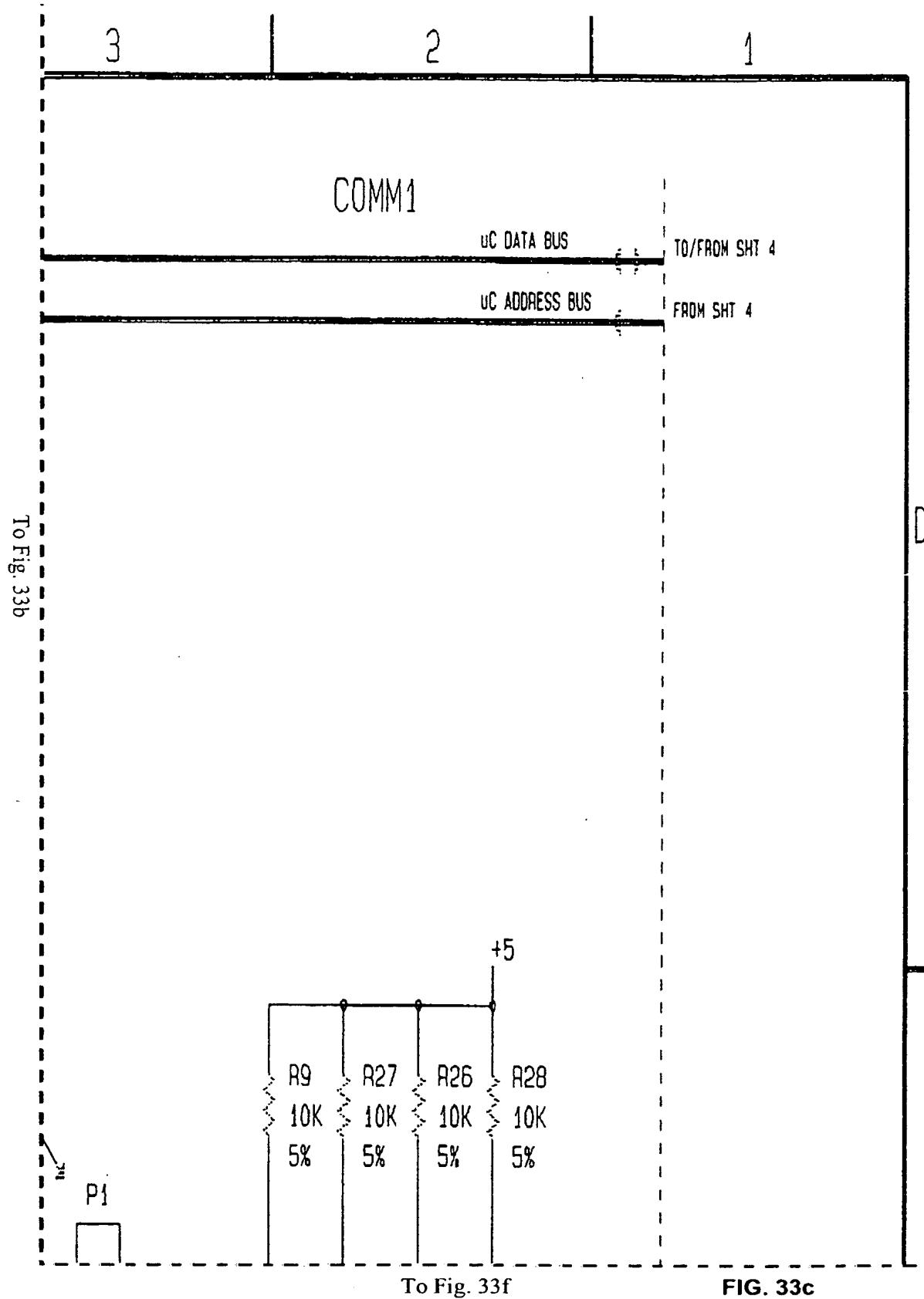
FIG. 32i



83 86307

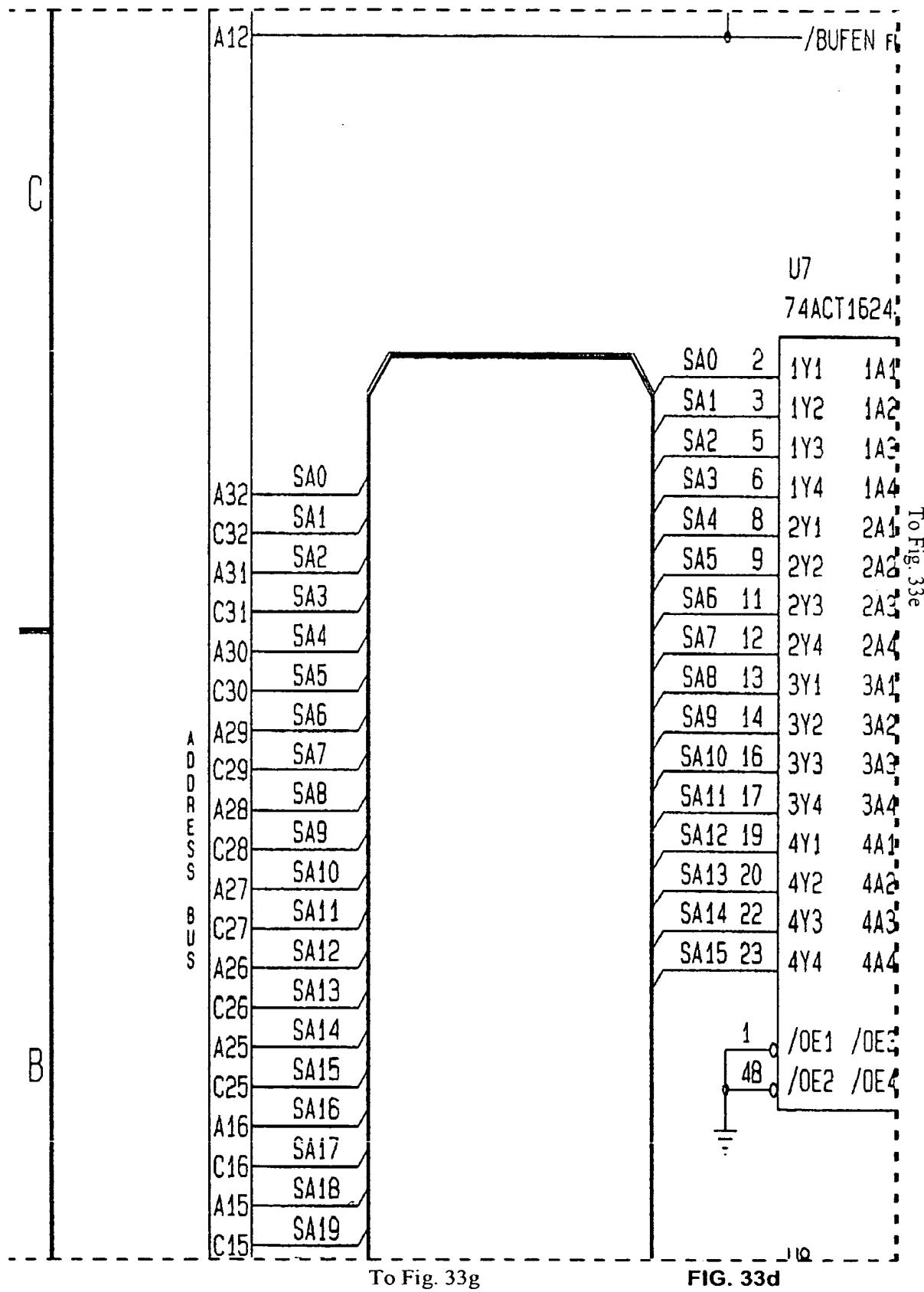


84 06 207

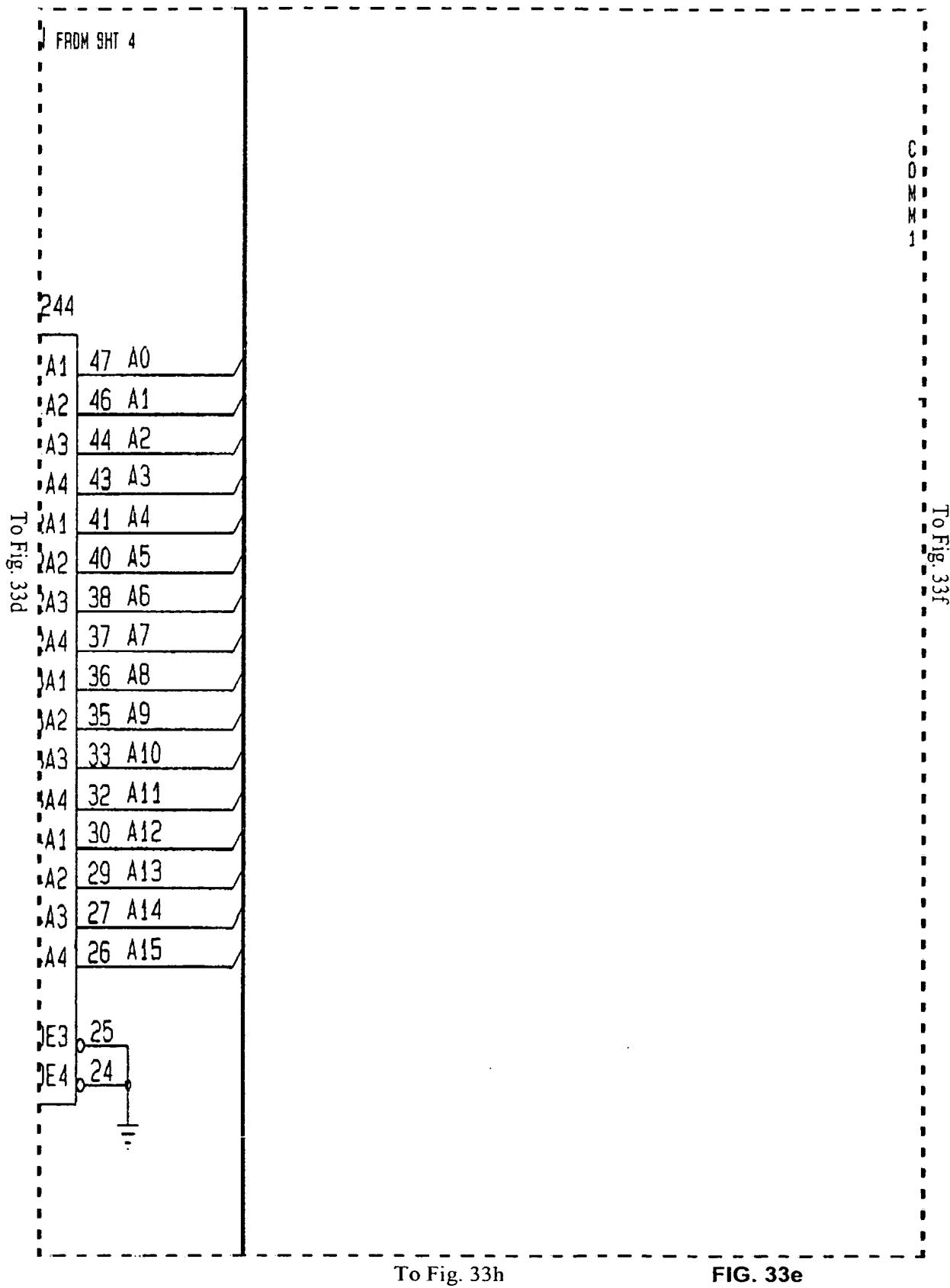


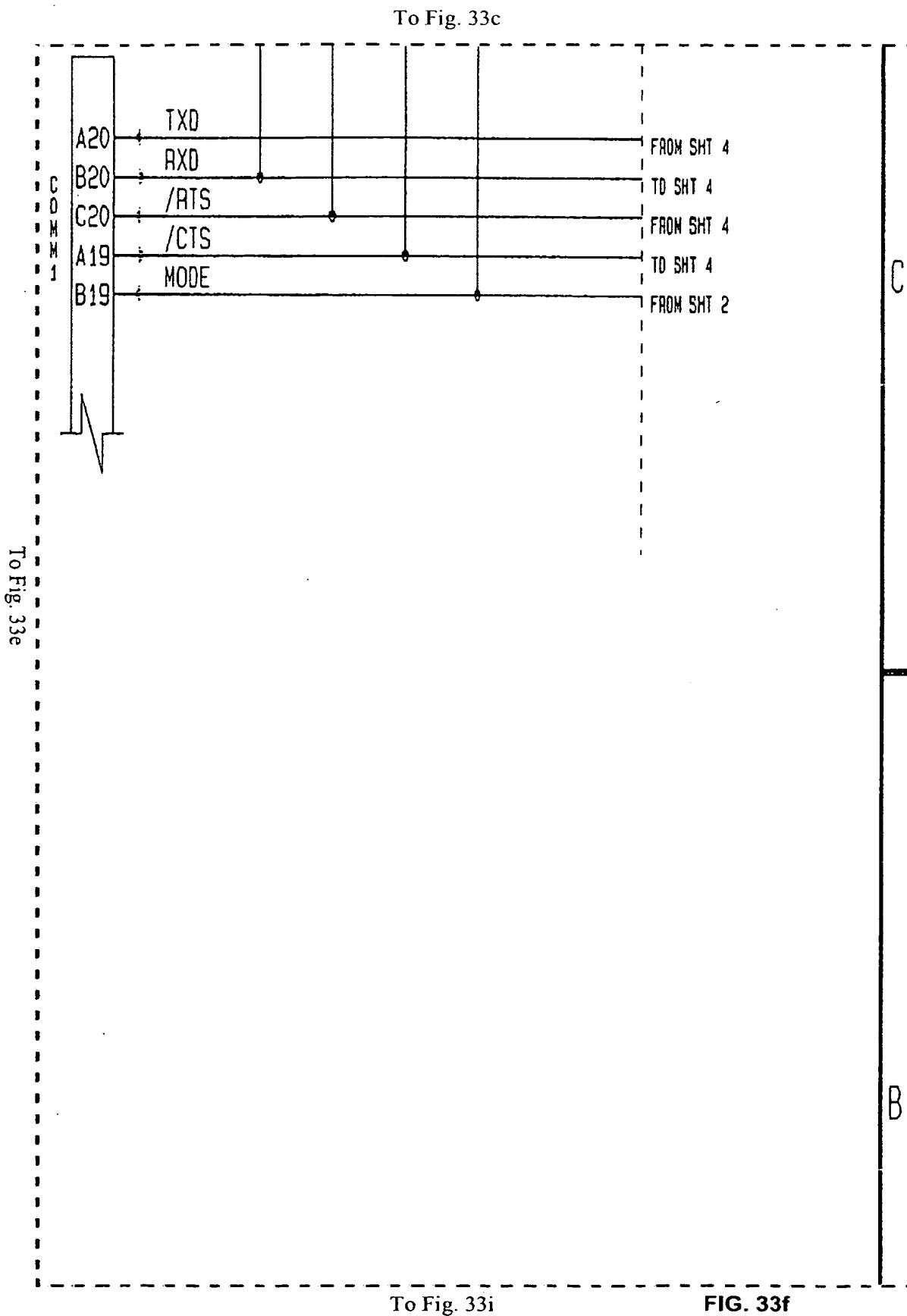
85 8 207

To Fig. 33a



To Fig. 33b





88 9 807

To Fig. 33d

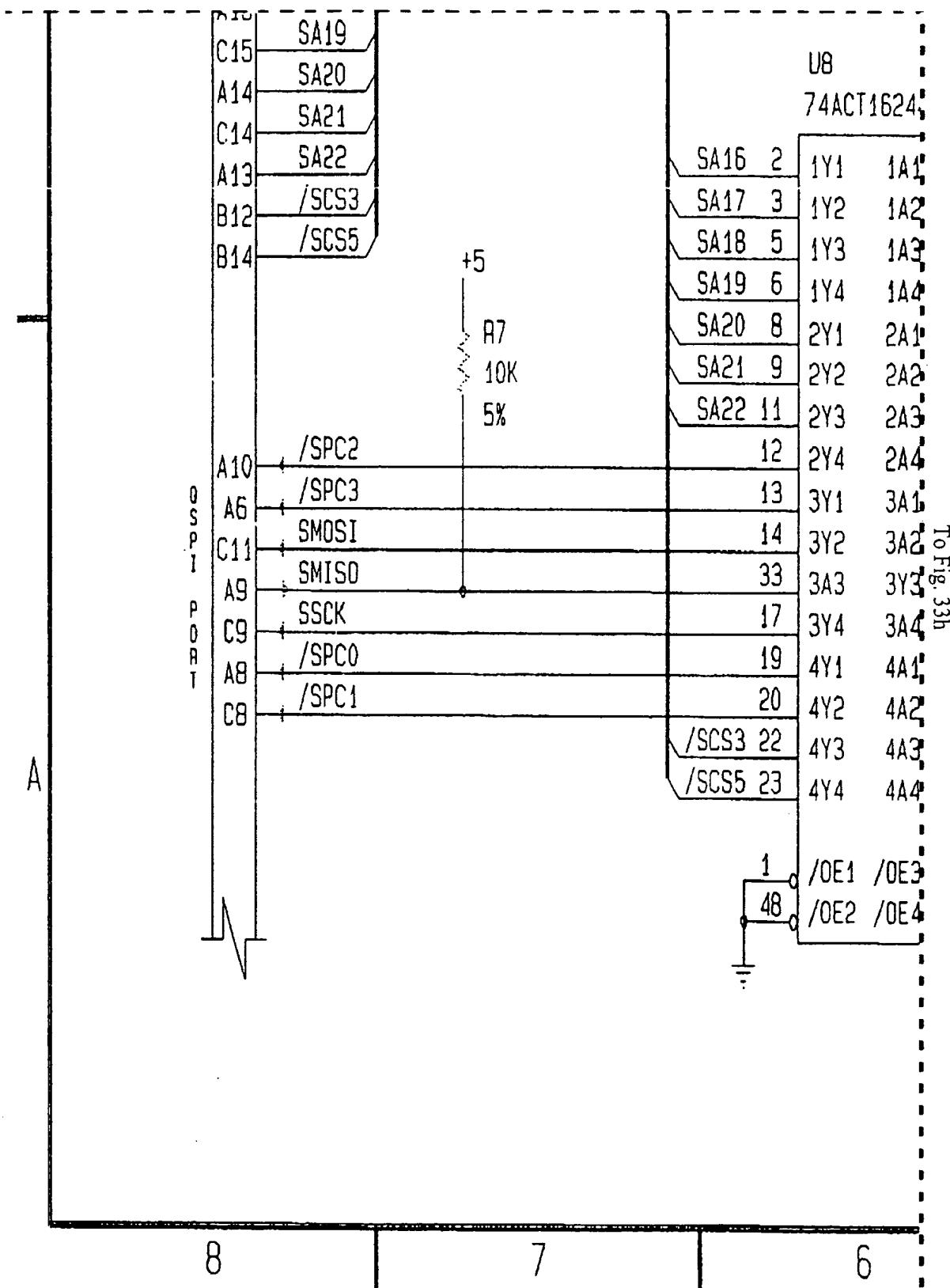
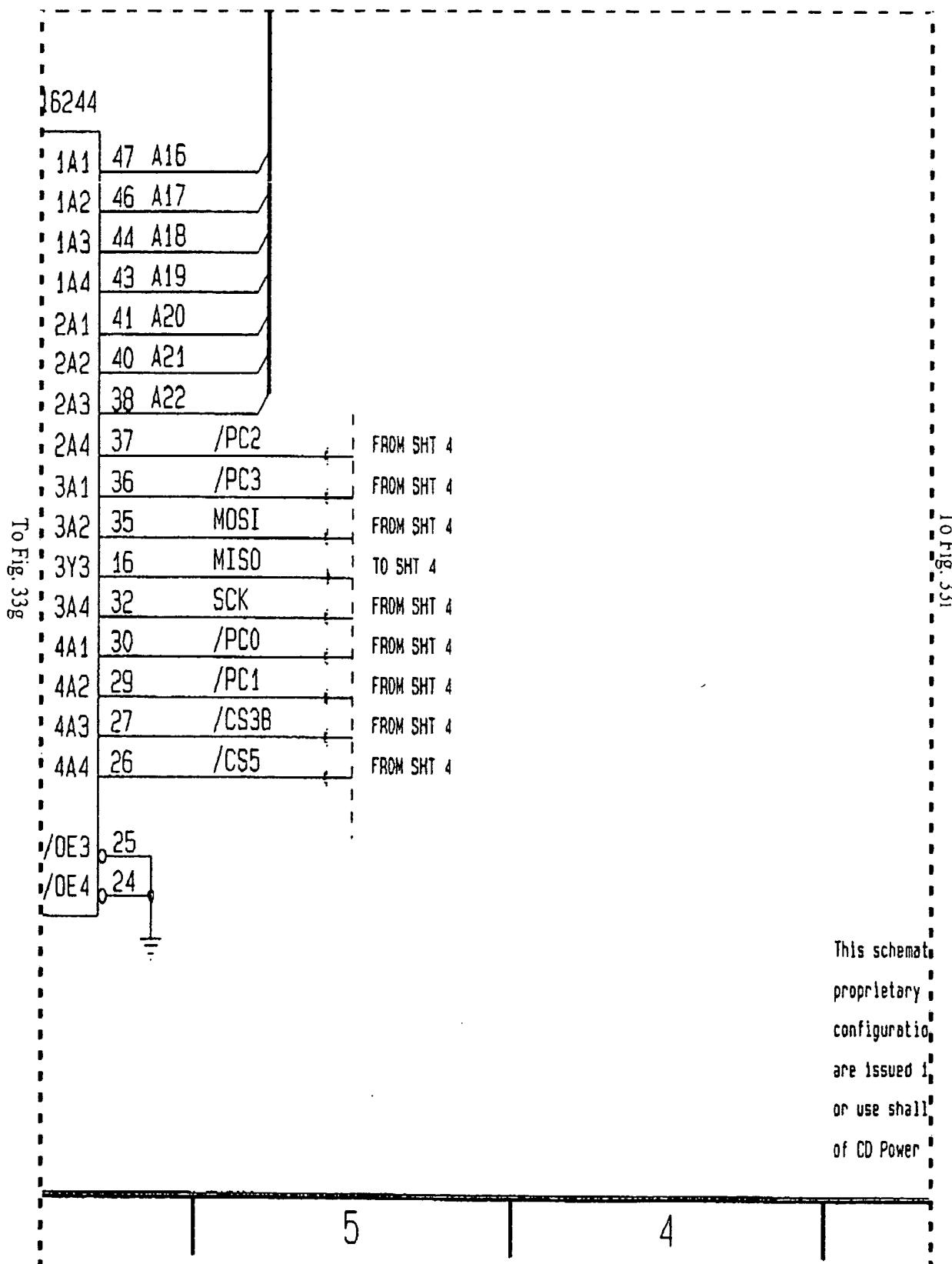


FIG. 33g

89 8 207

To Fig. 33e



To Fig. 33f

To Fig. 33h

A

tic and/or specifications are the  
property, trade secrets, or patented  
processes of CD Power Measurement Ltd. and  
are held in strict confidence. No reproduction  
may be made without prior written consent  
of CD Power Measurement Ltd.

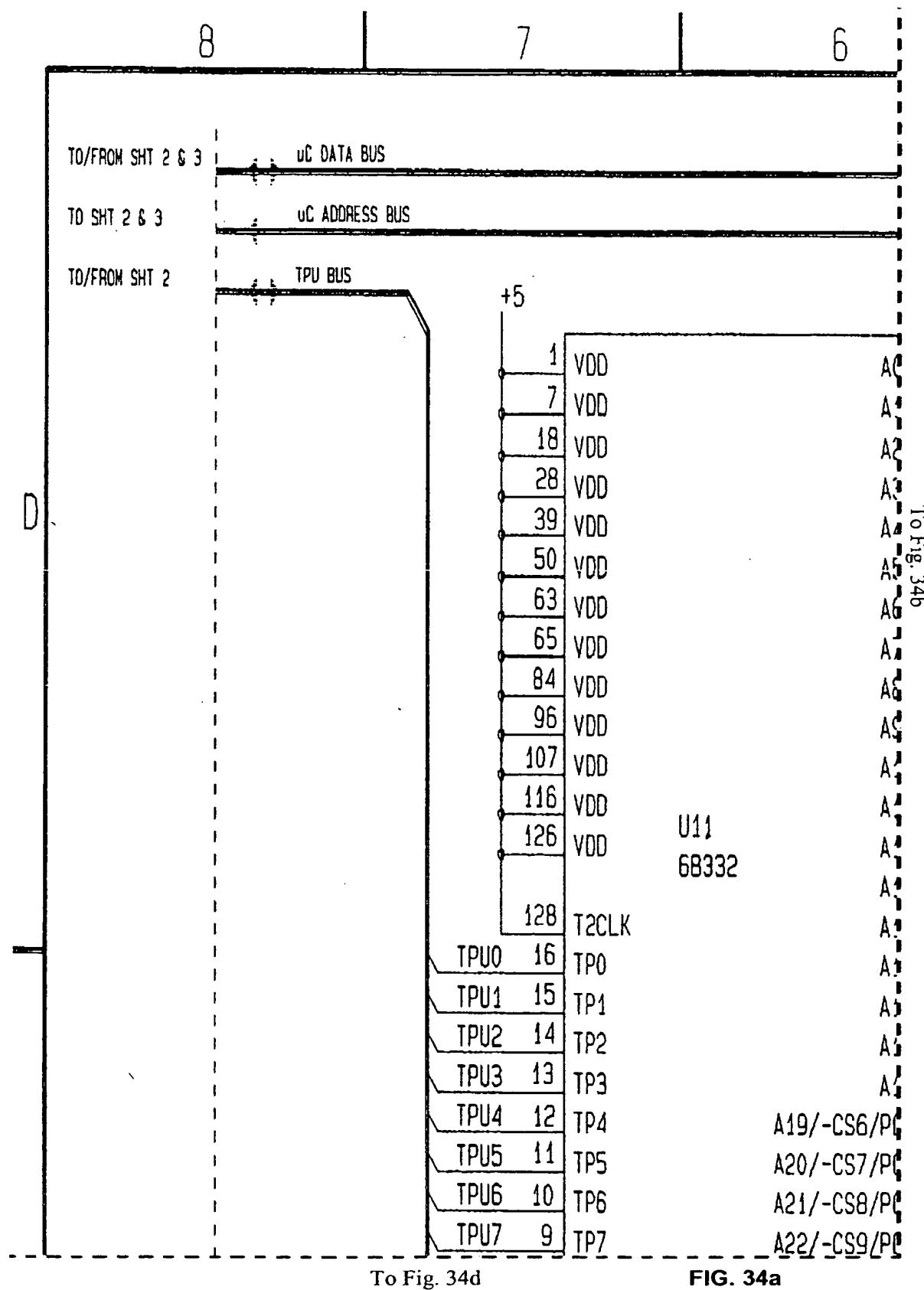
		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: MAY 20, 1993		SHEET 3 OF 7	

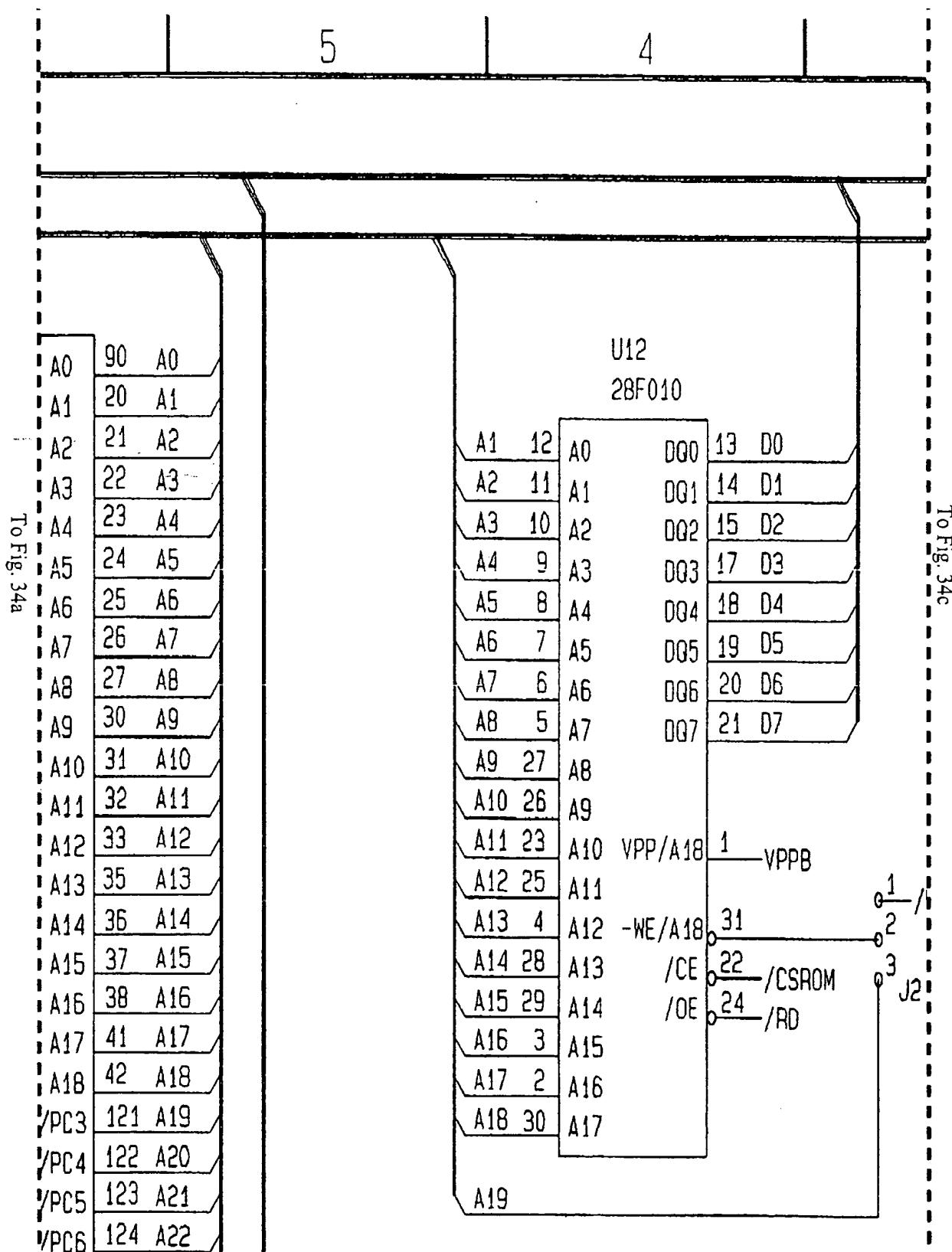
3

2

1

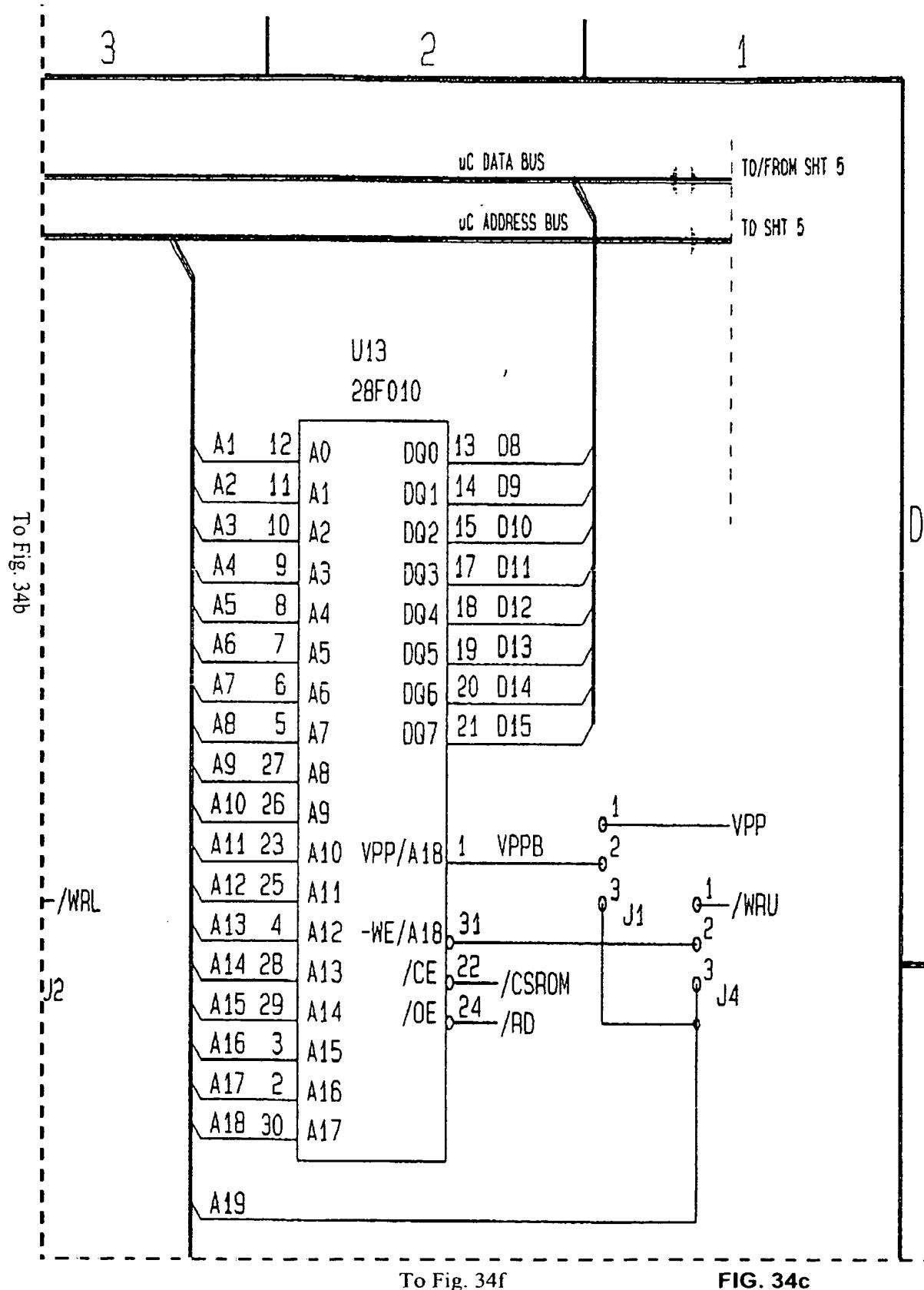
FIG. 33i





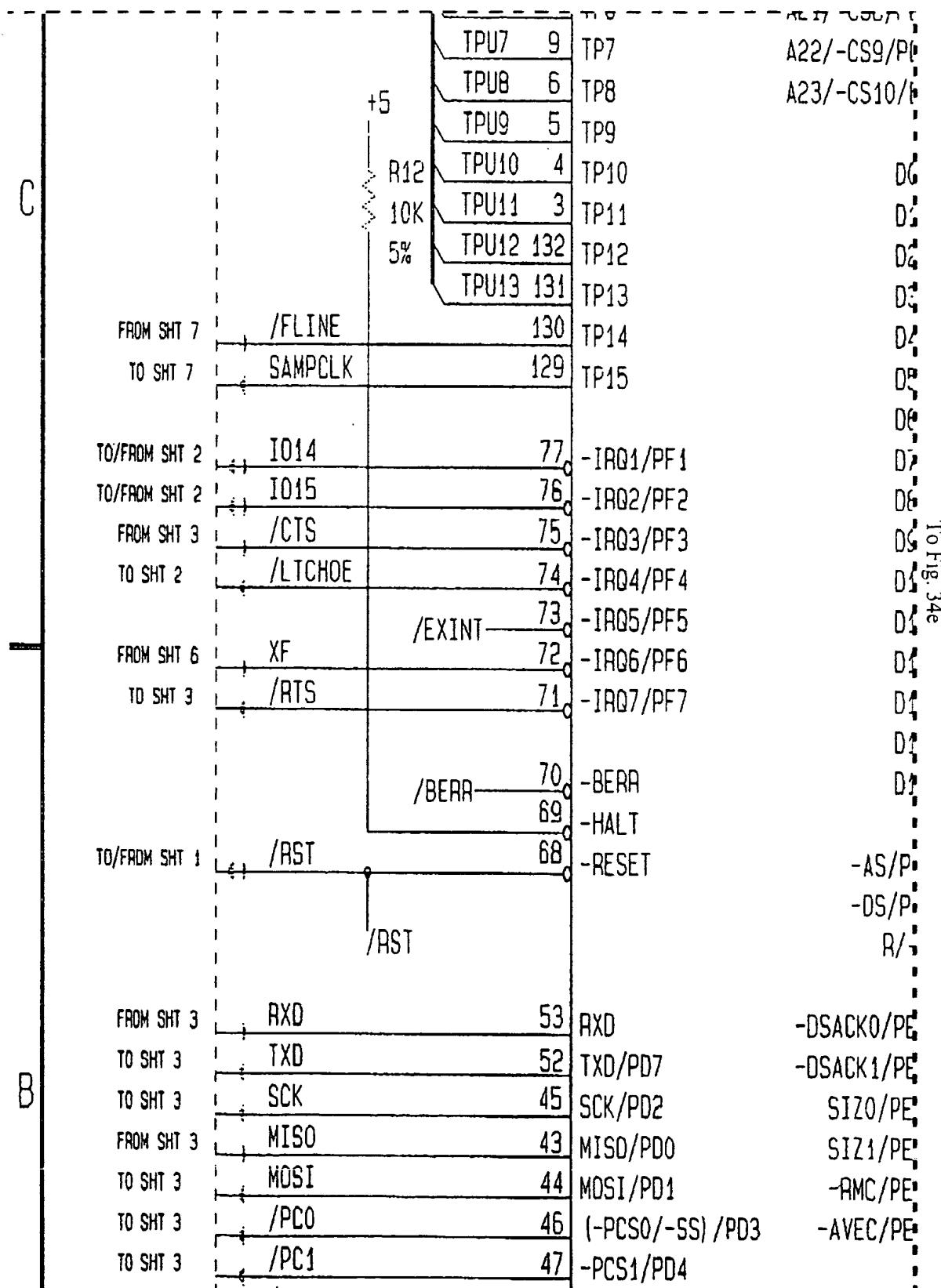
To Fig. 34e

**FIG. 34b**



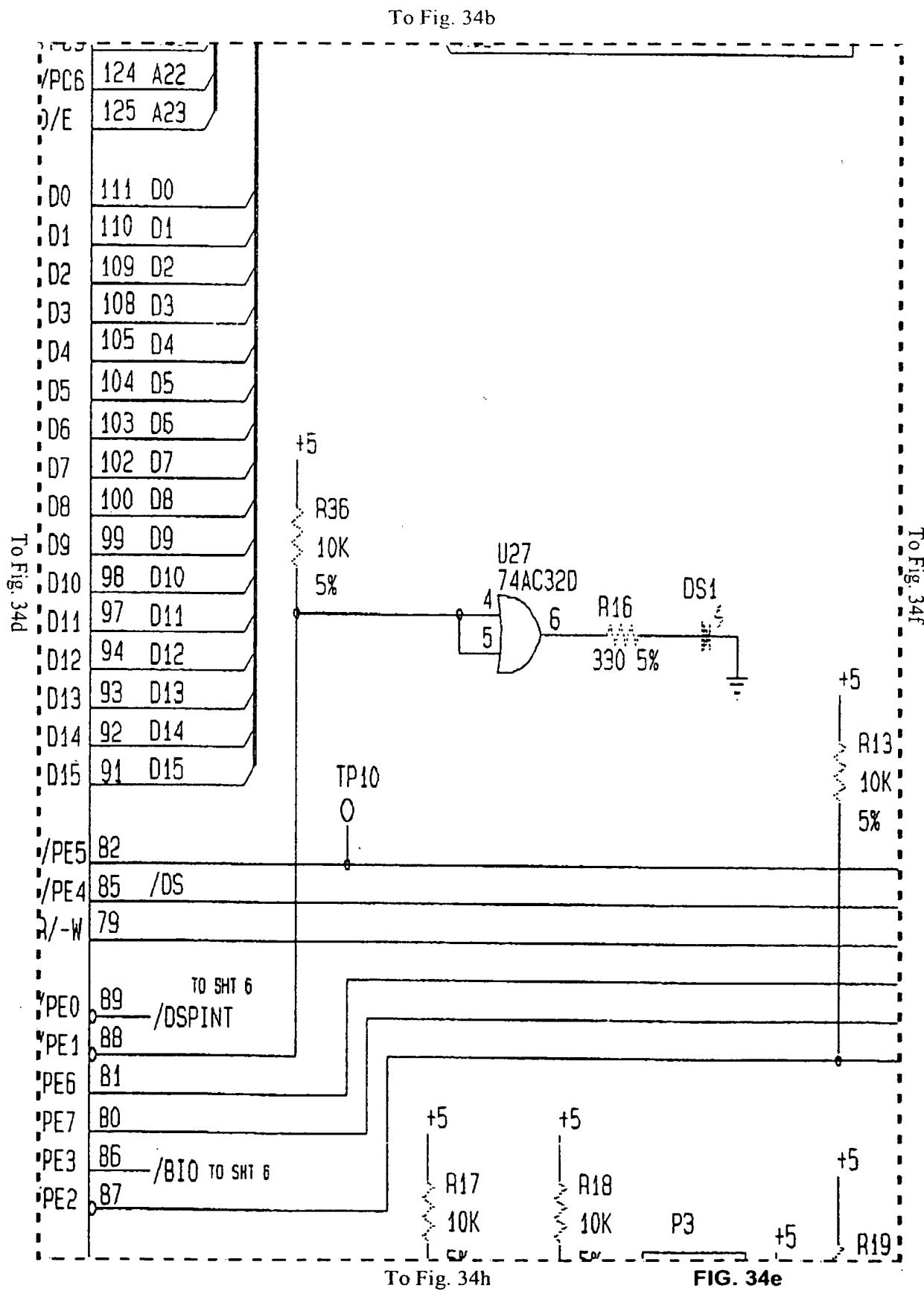
ION, CONTROL, A  
94 9 207

To Fig. 34a



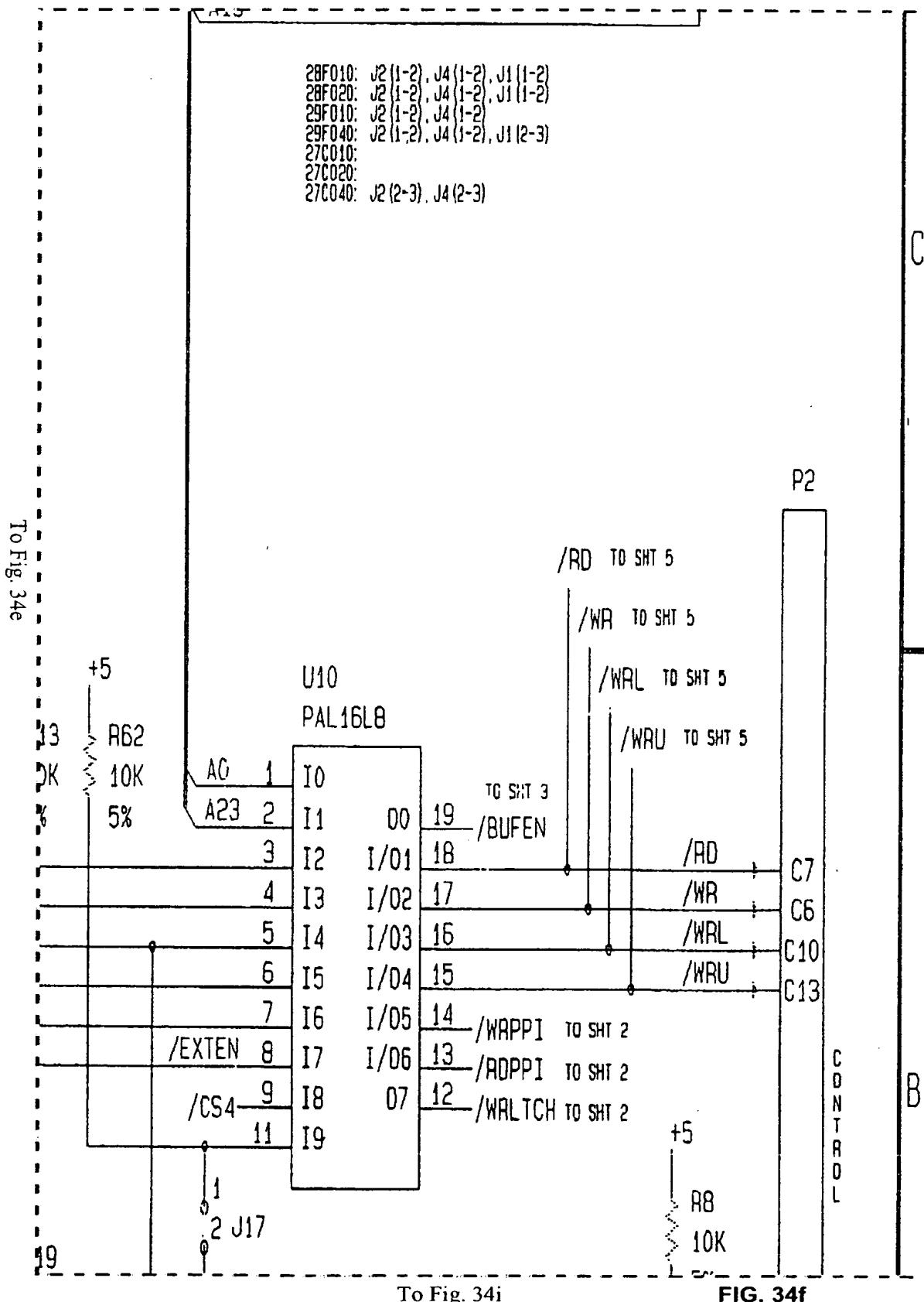
To Fig. 34g

FIG. 34d



96 8207

To Fig. 34c



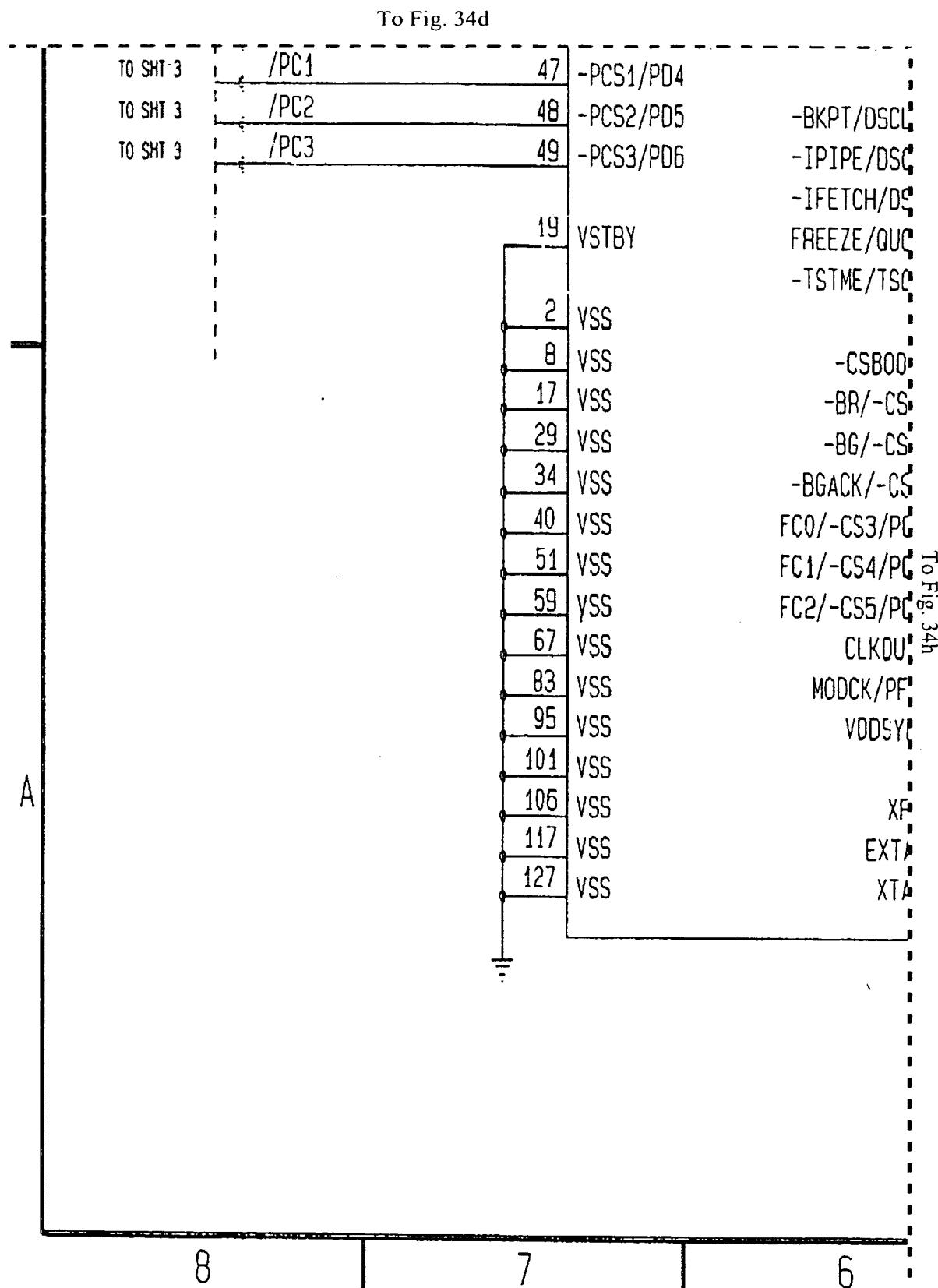
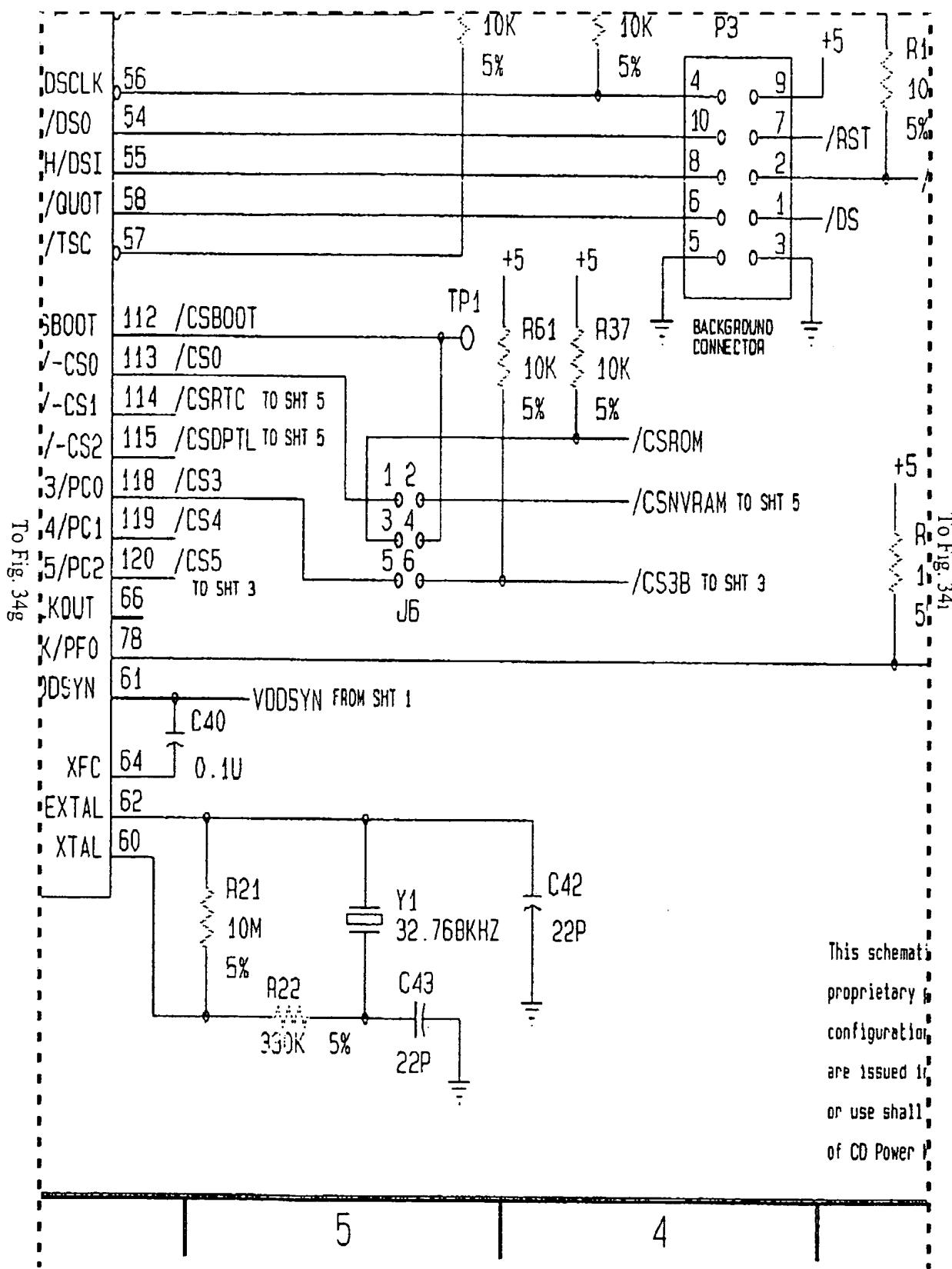


FIG. 34g

98 8 807

To Fig. 34e

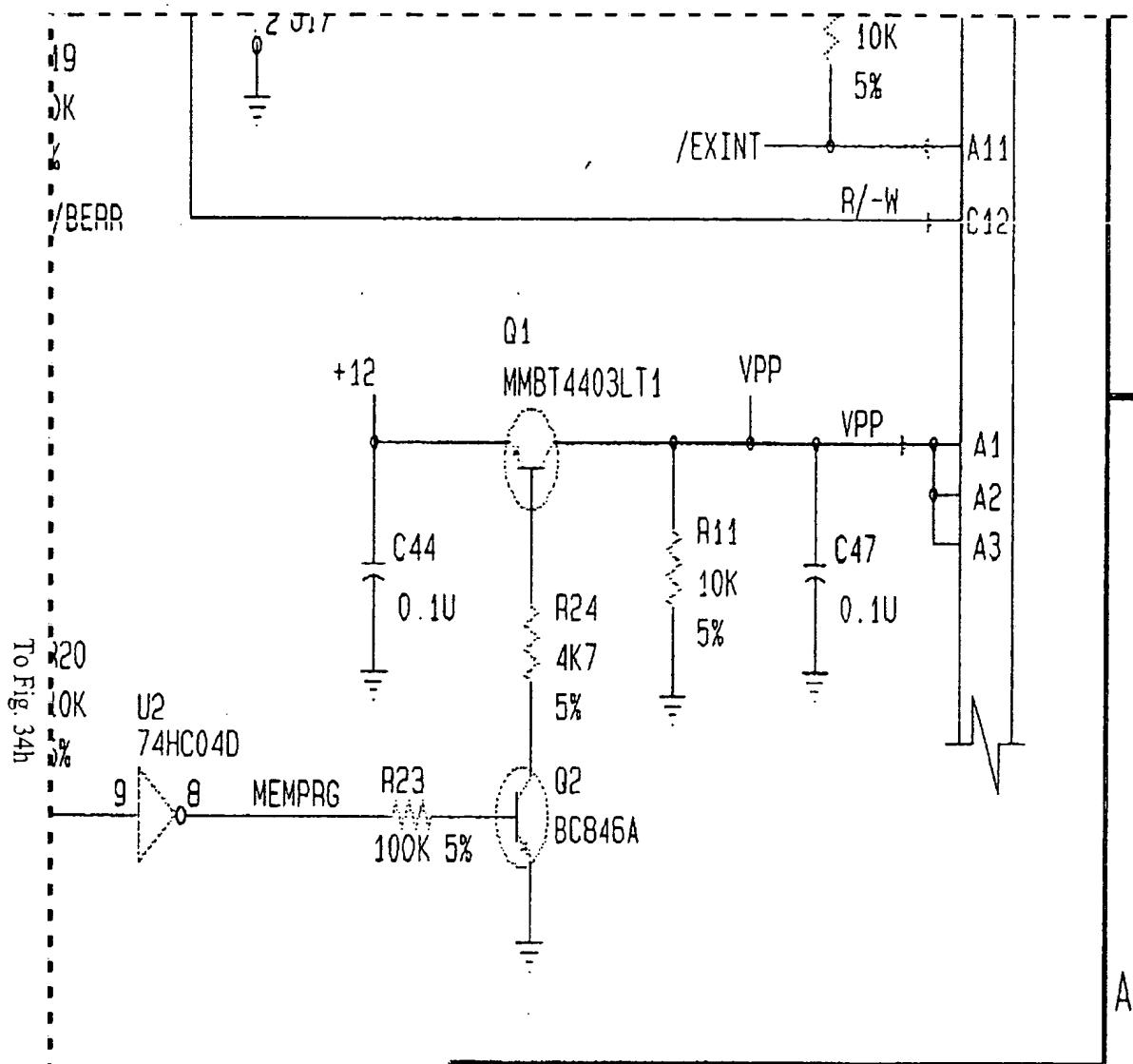


This schematic  
proprietary  
configuration  
are issued if  
or use shall  
of CD Power

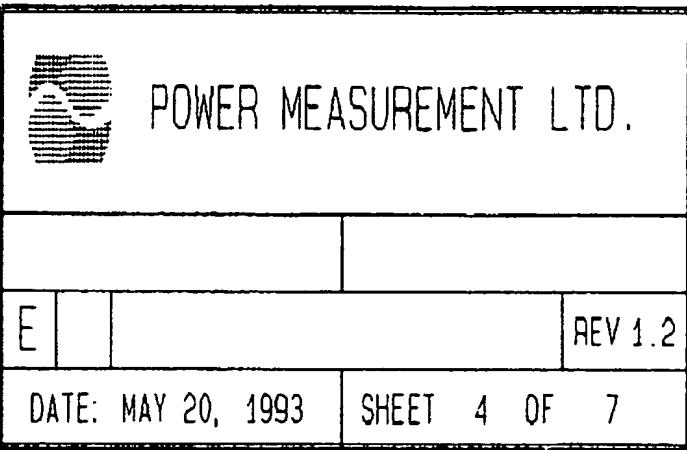
FIG. 34h

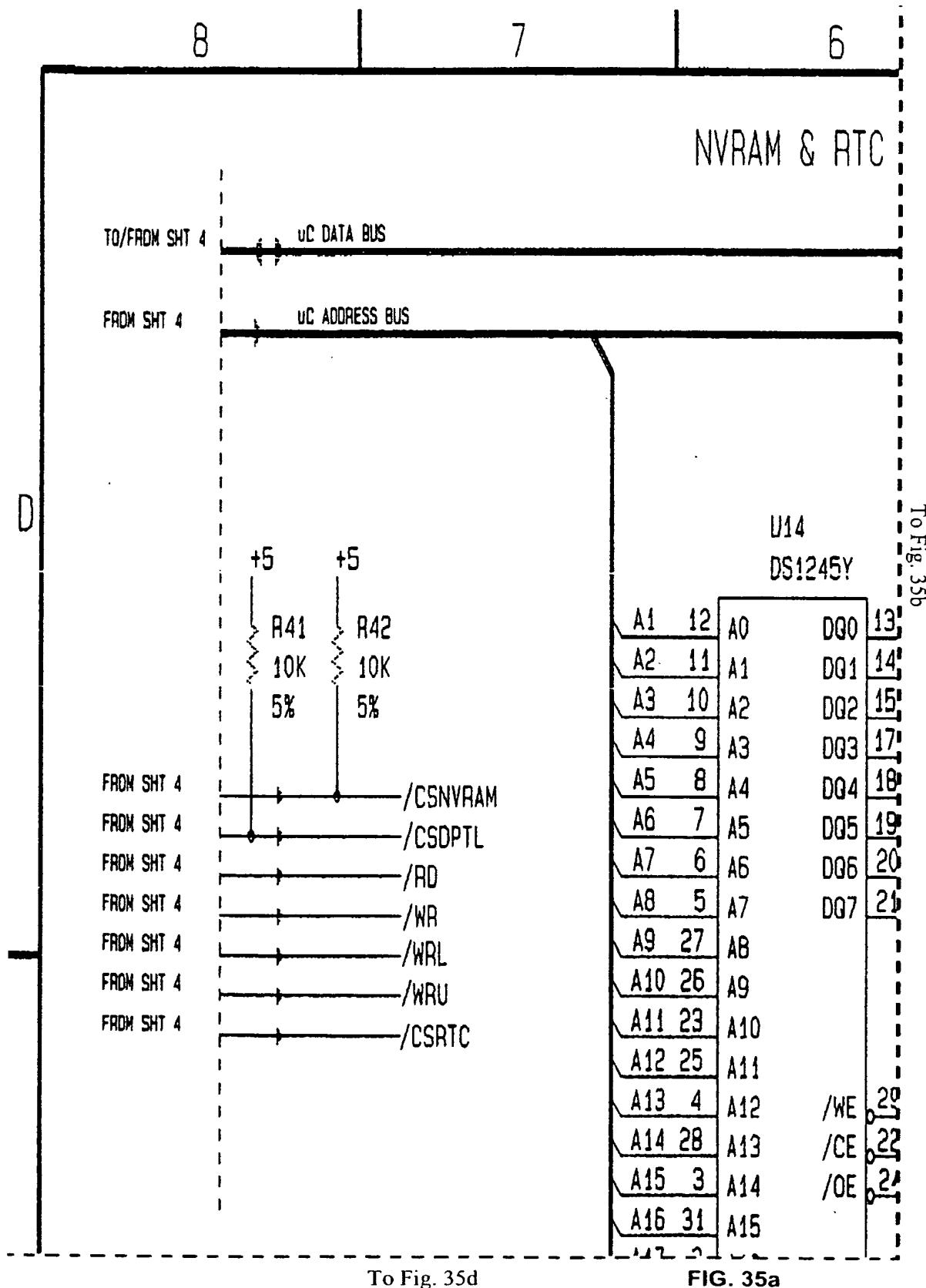
99 06 207

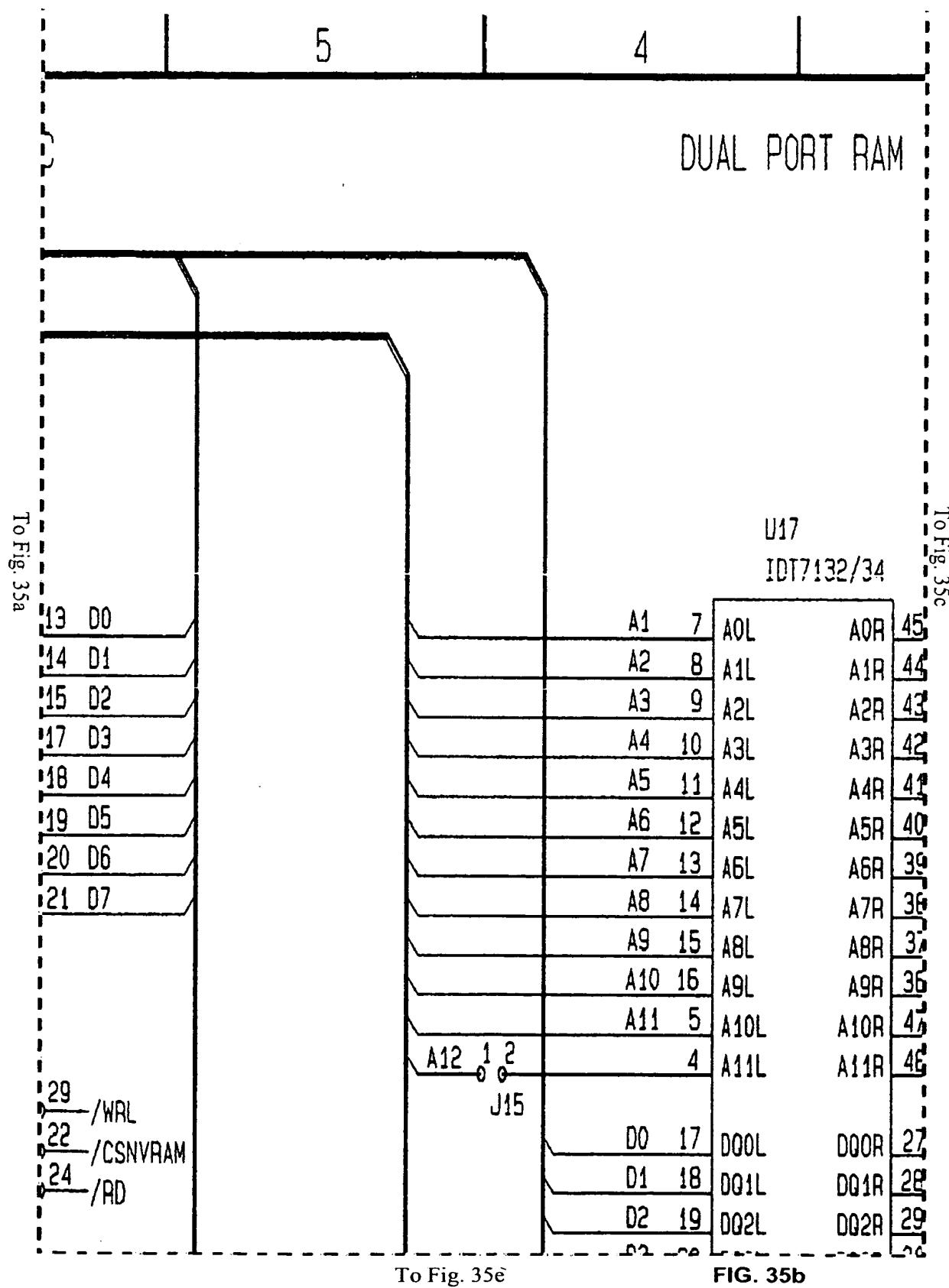
To Fig. 34f



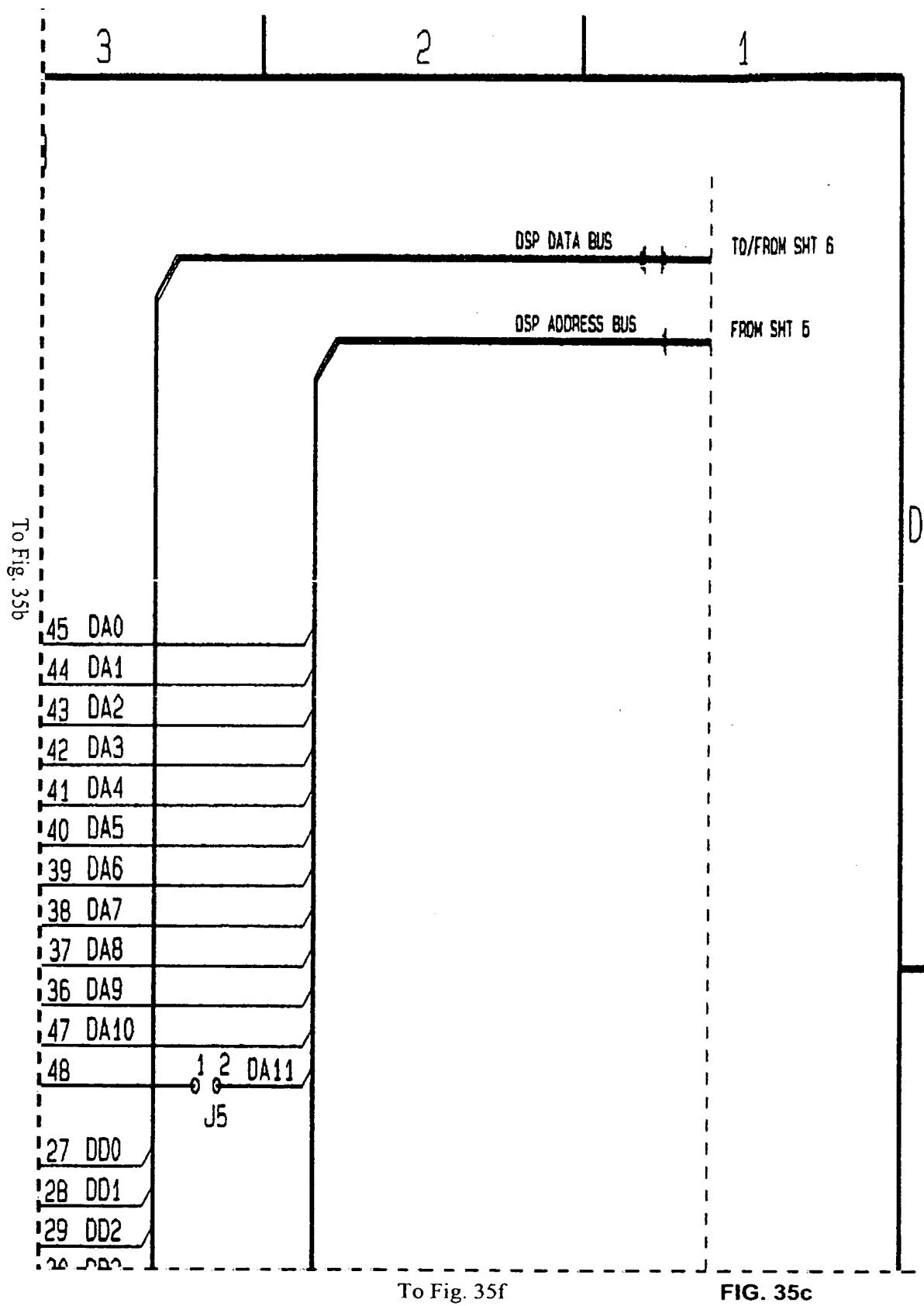
ic and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.





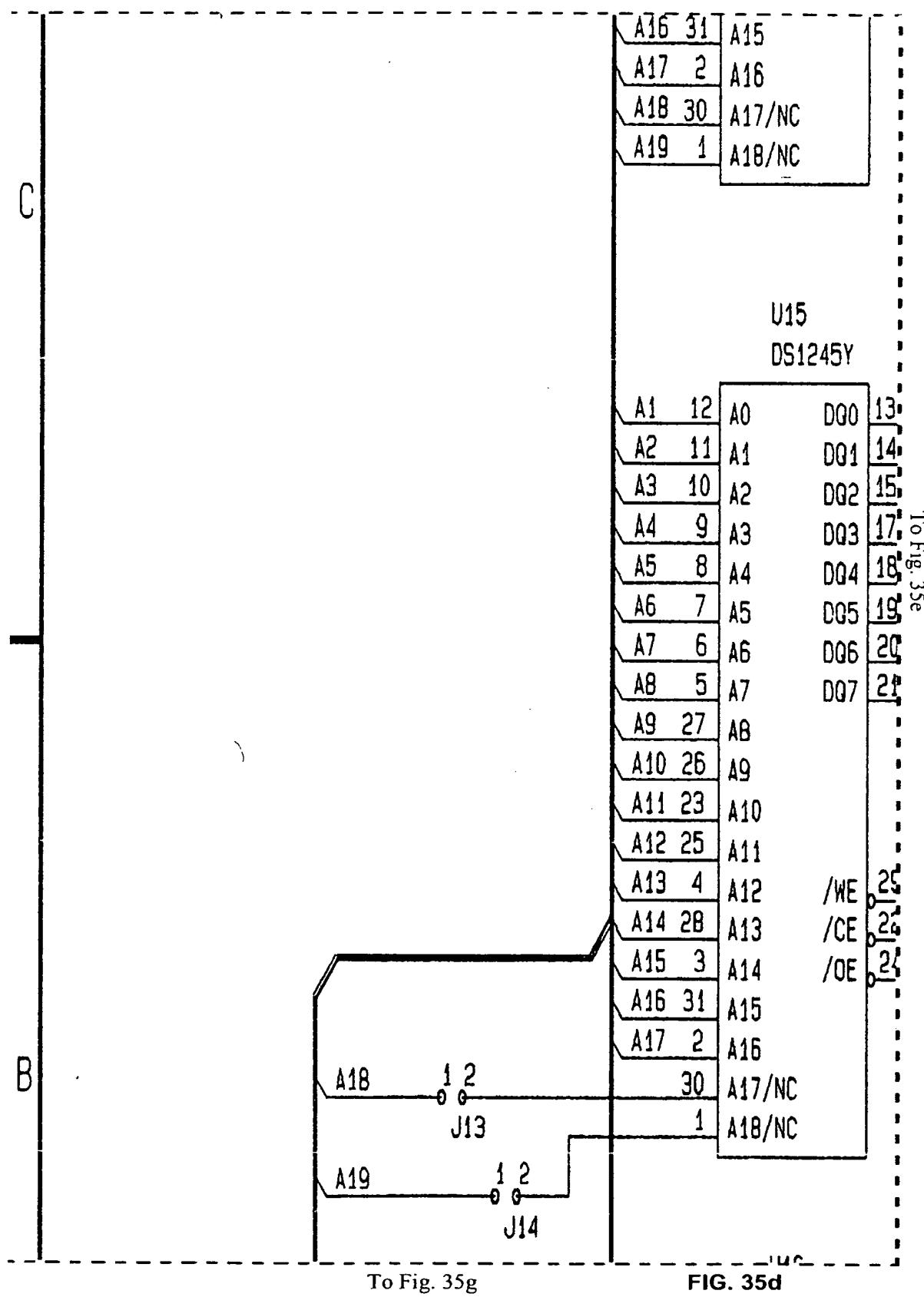


103 88207



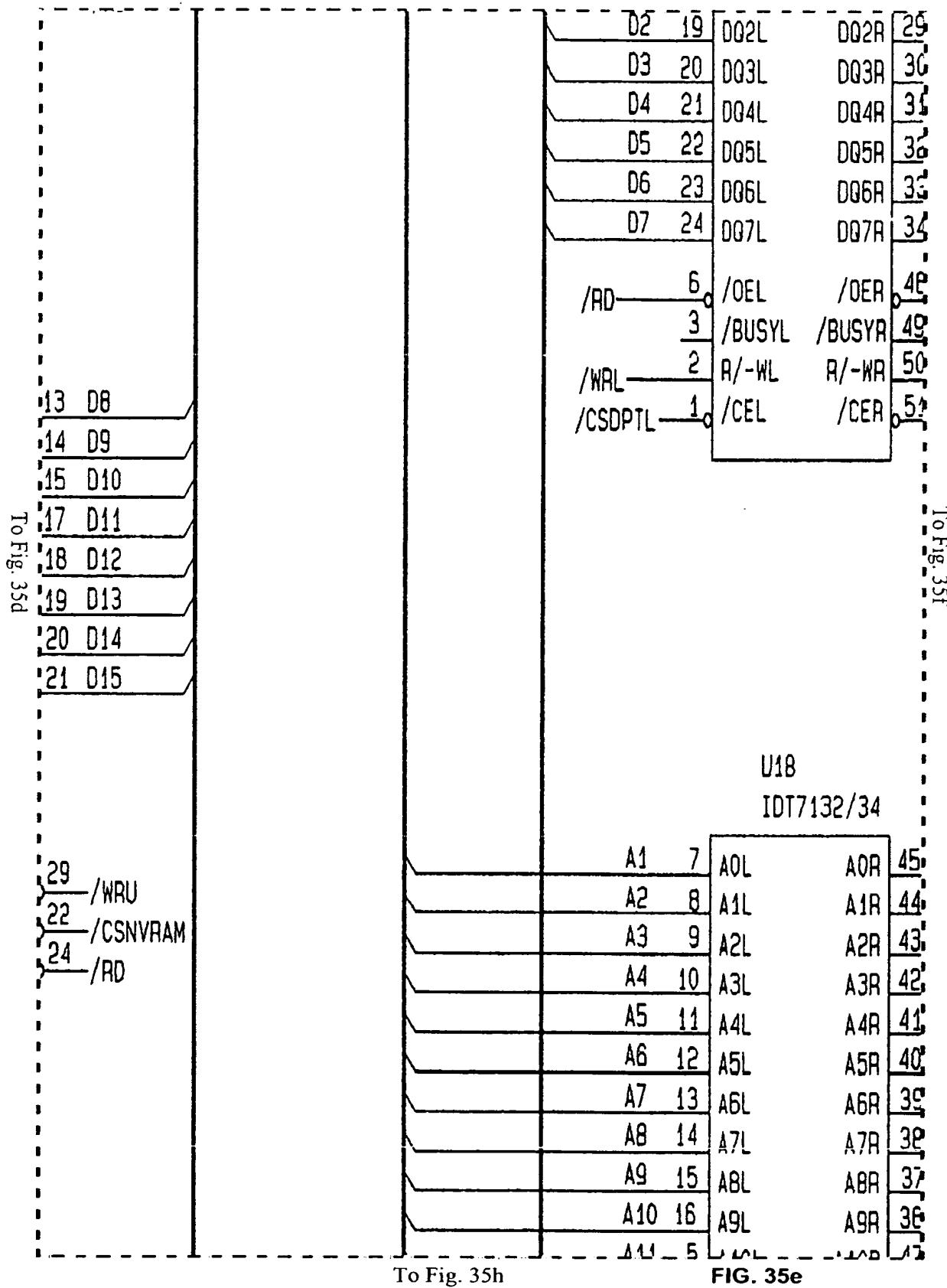
(03 08 2007)

To Fig. 35a



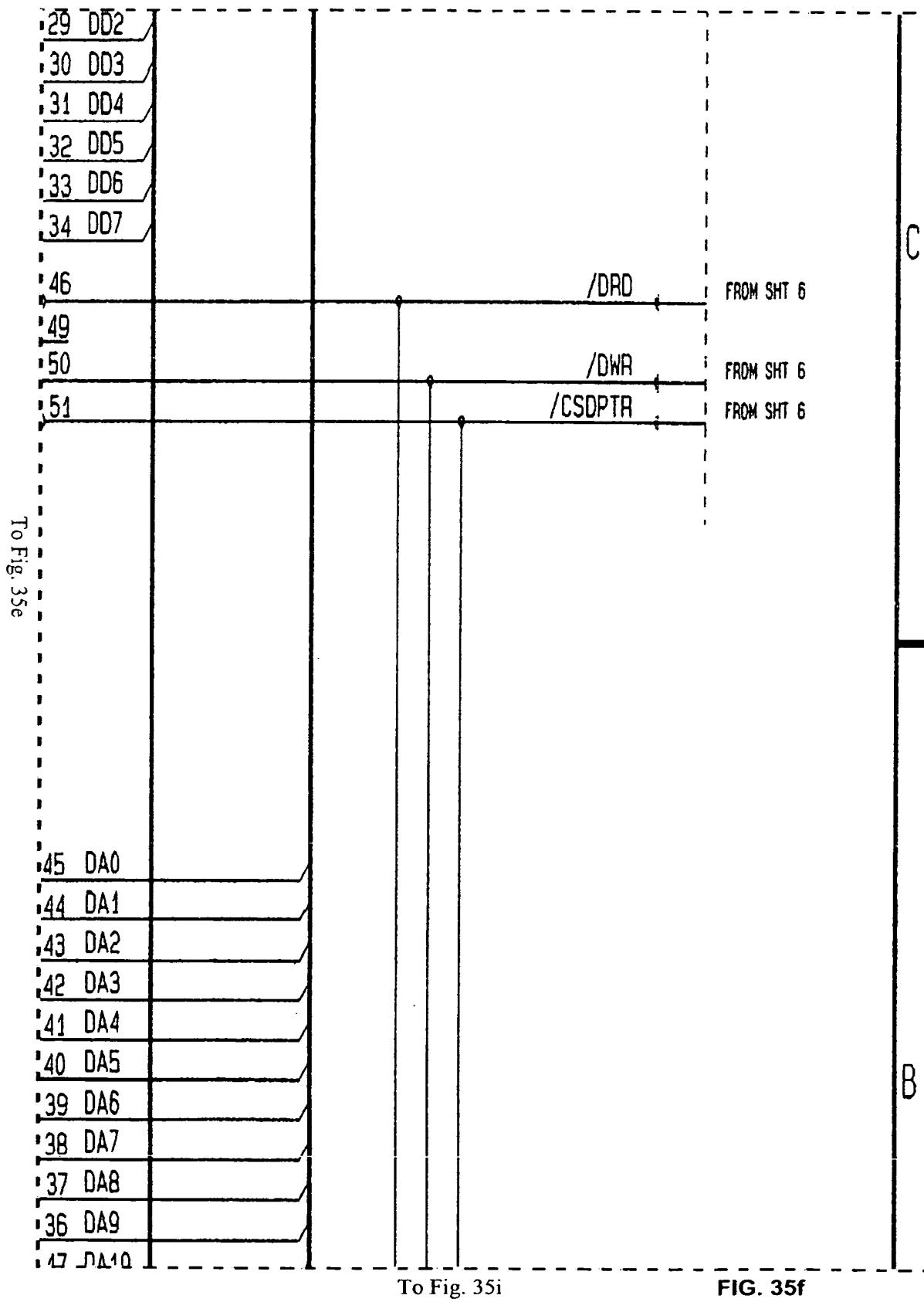
104 06 207

To Fig. 35b



105 8 287

To Fig. 35c



106 08 3-07

To Fig. 35d

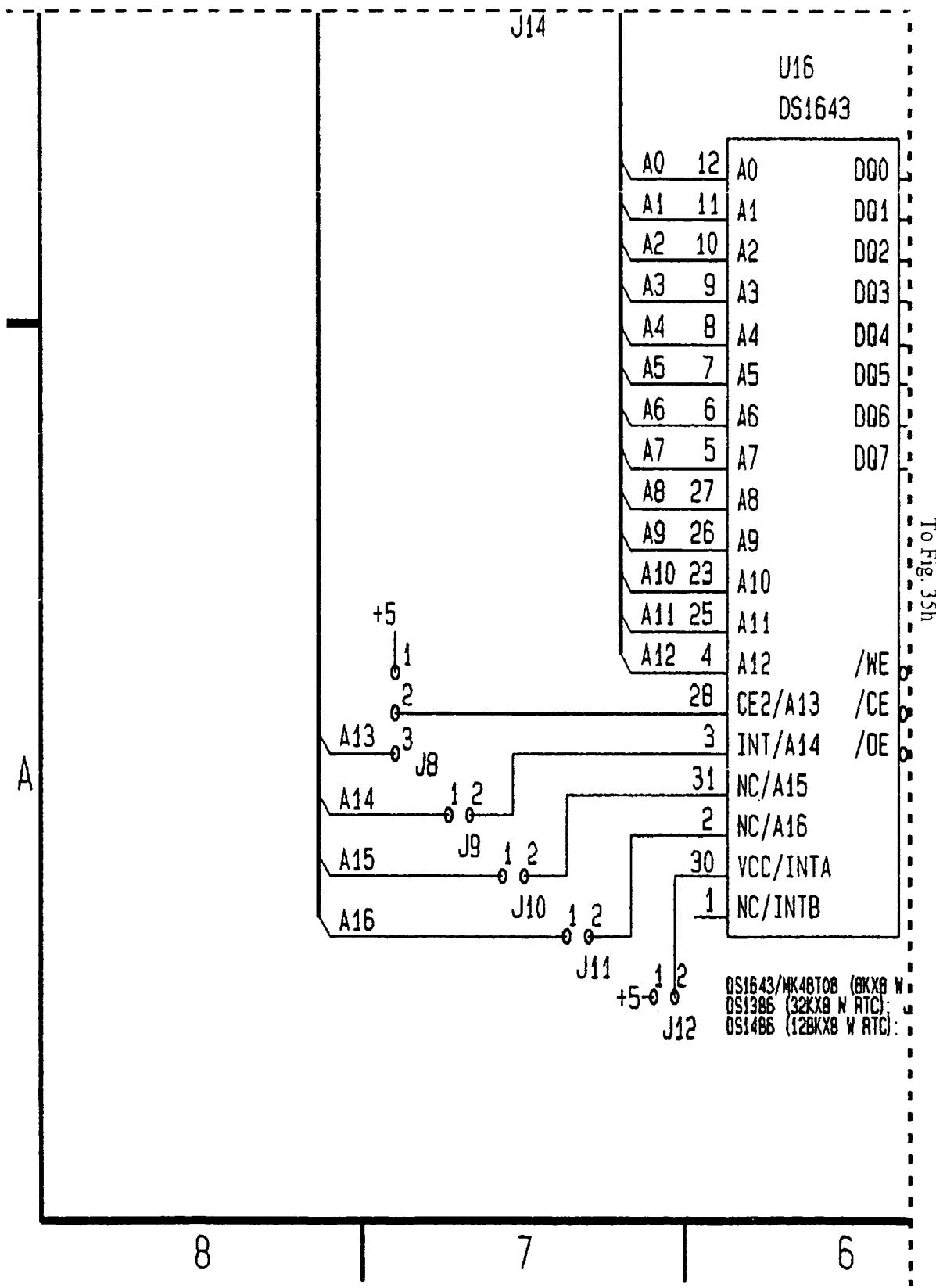
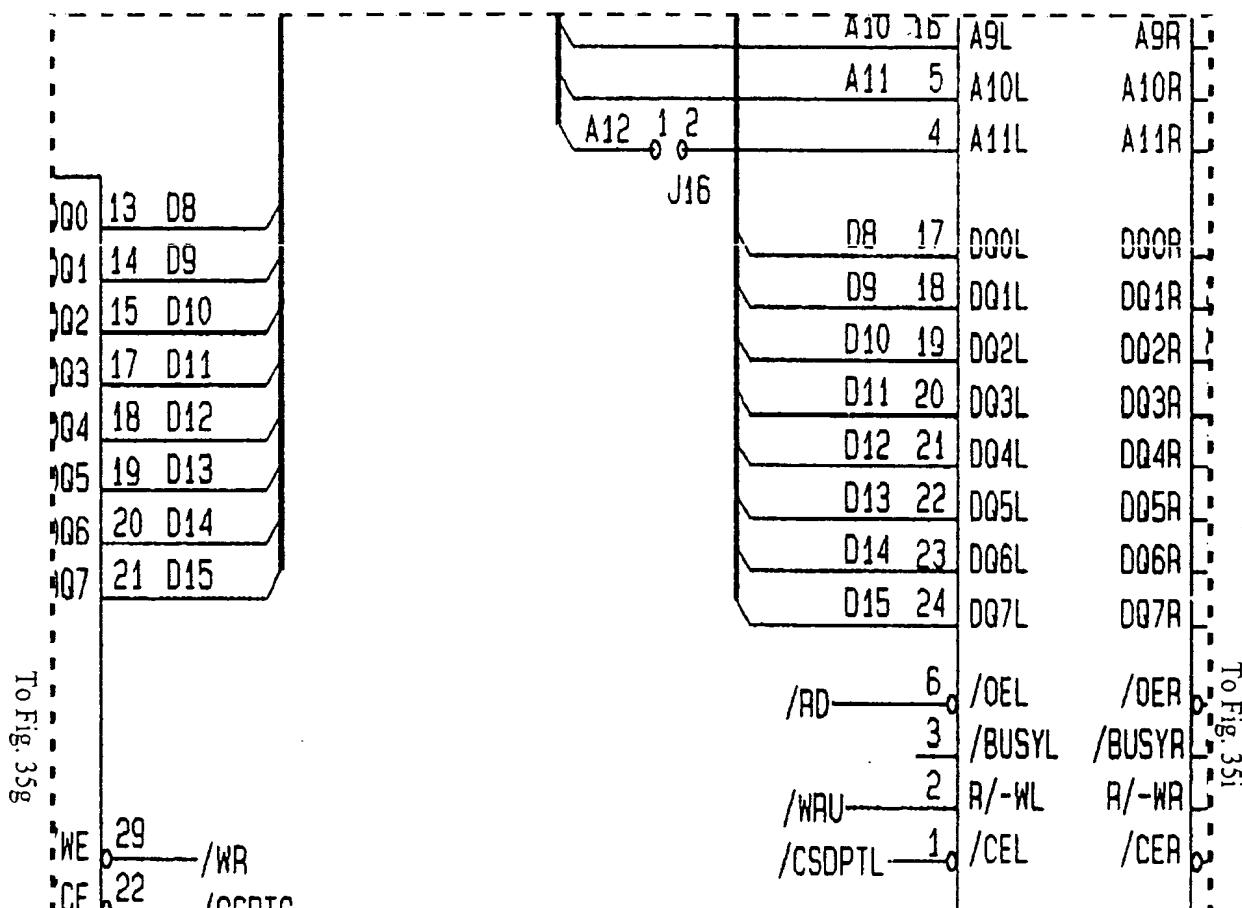


FIG. 35g

107 67 207

To Fig. 35e

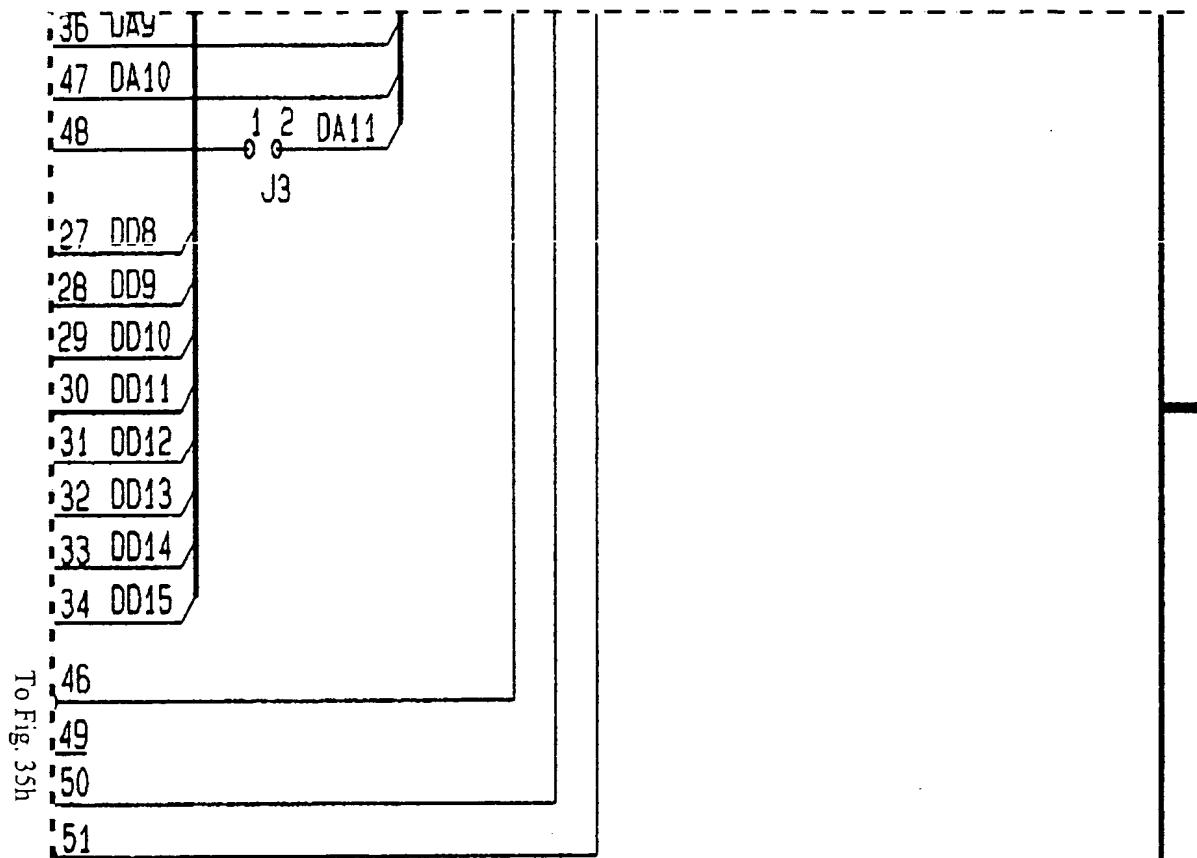


KX8 W RTC: J8 (1-2), J12  
 RTC: J8 (2-3), J9, J12  
 RTC: J8 (2-3), J9, J10, J11

This schematic  
 proprietary p  
 configuration  
 are issued in  
 or use shall  
 of CD Power X

(08 07) 07

To Fig. 35f



A

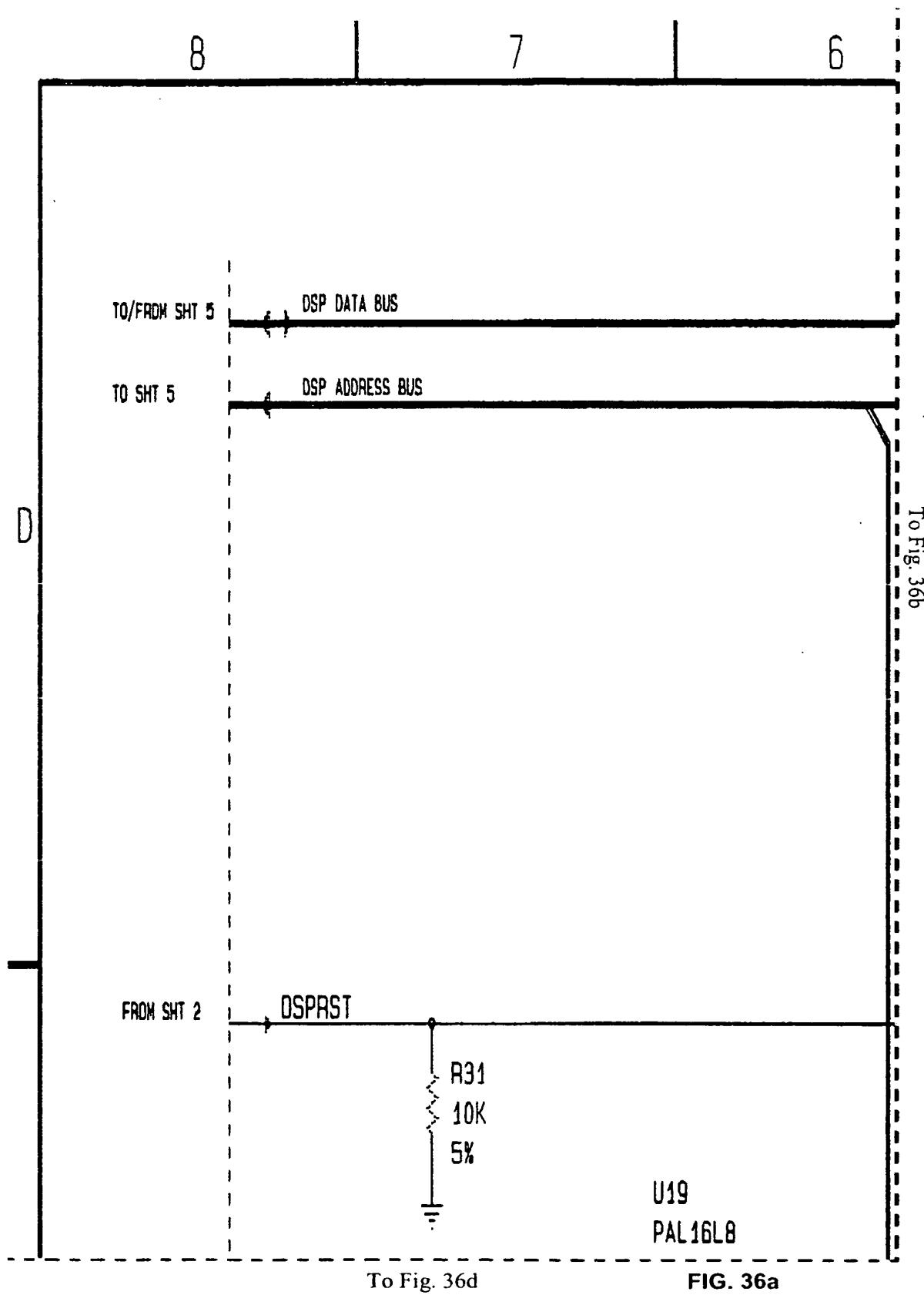
		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: MAY 11, 1993		SHEET	5 OF 7

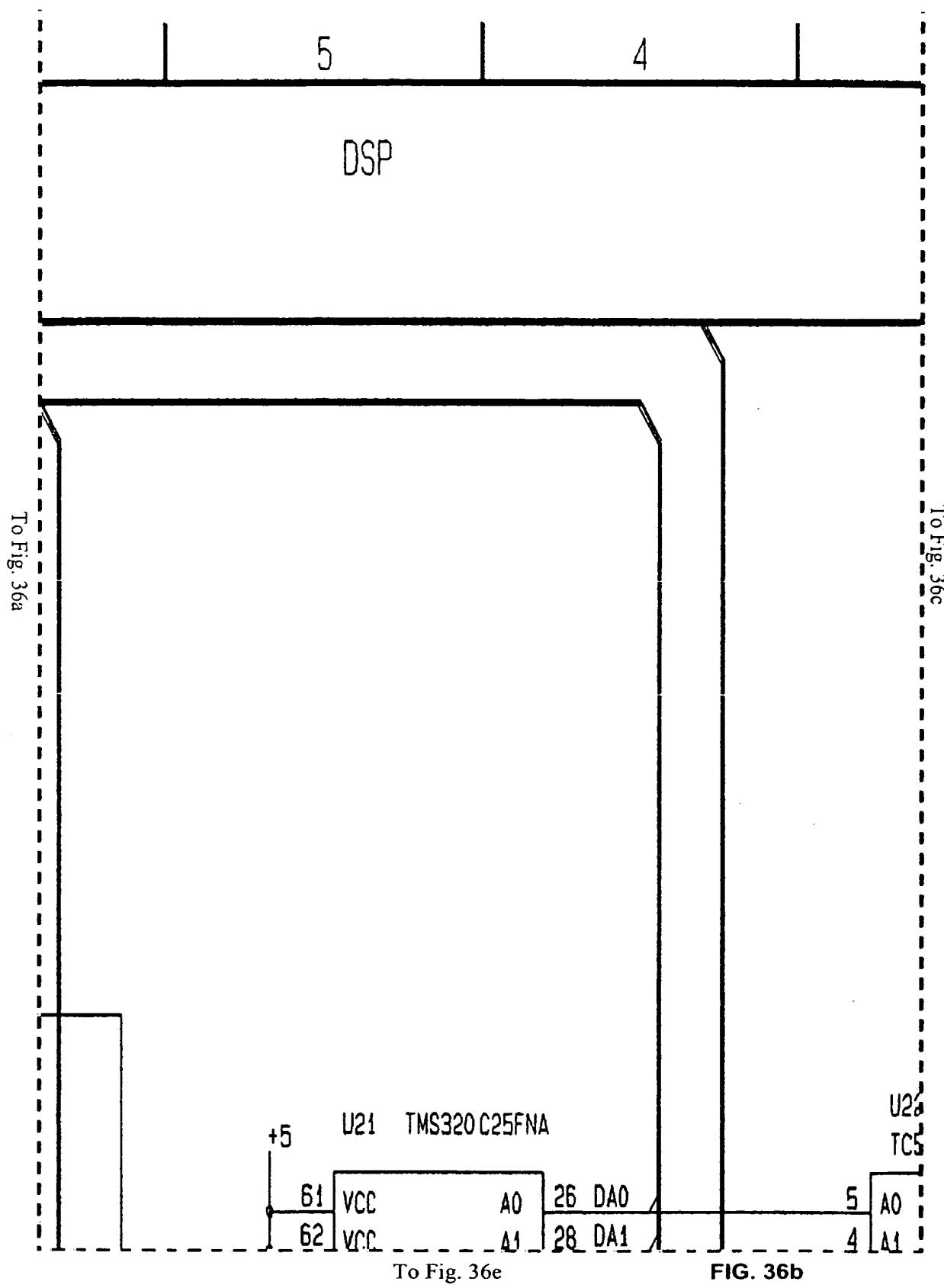
3

2

1

FIG. 35i

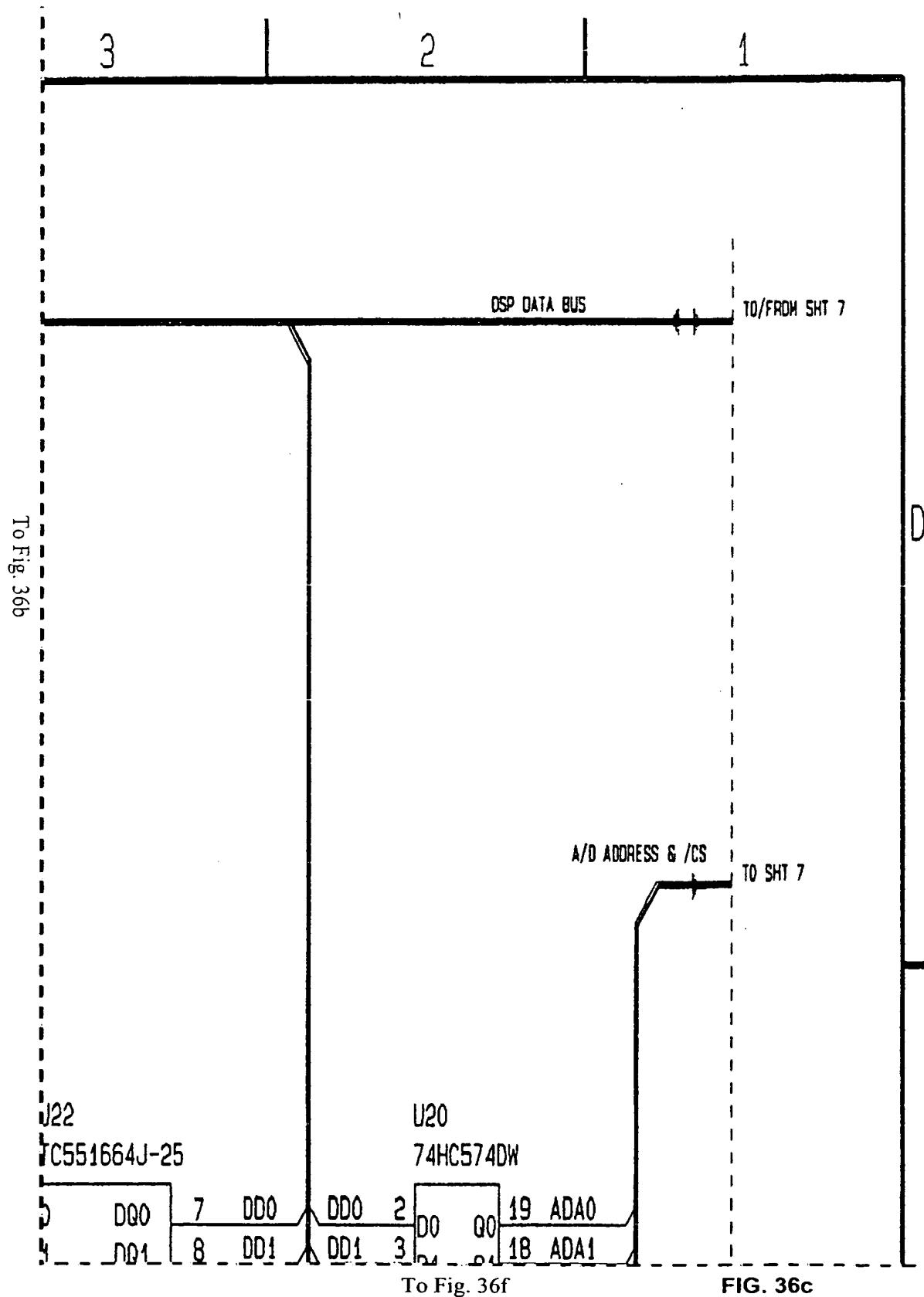




Inventor(s): Ronald G. Hart

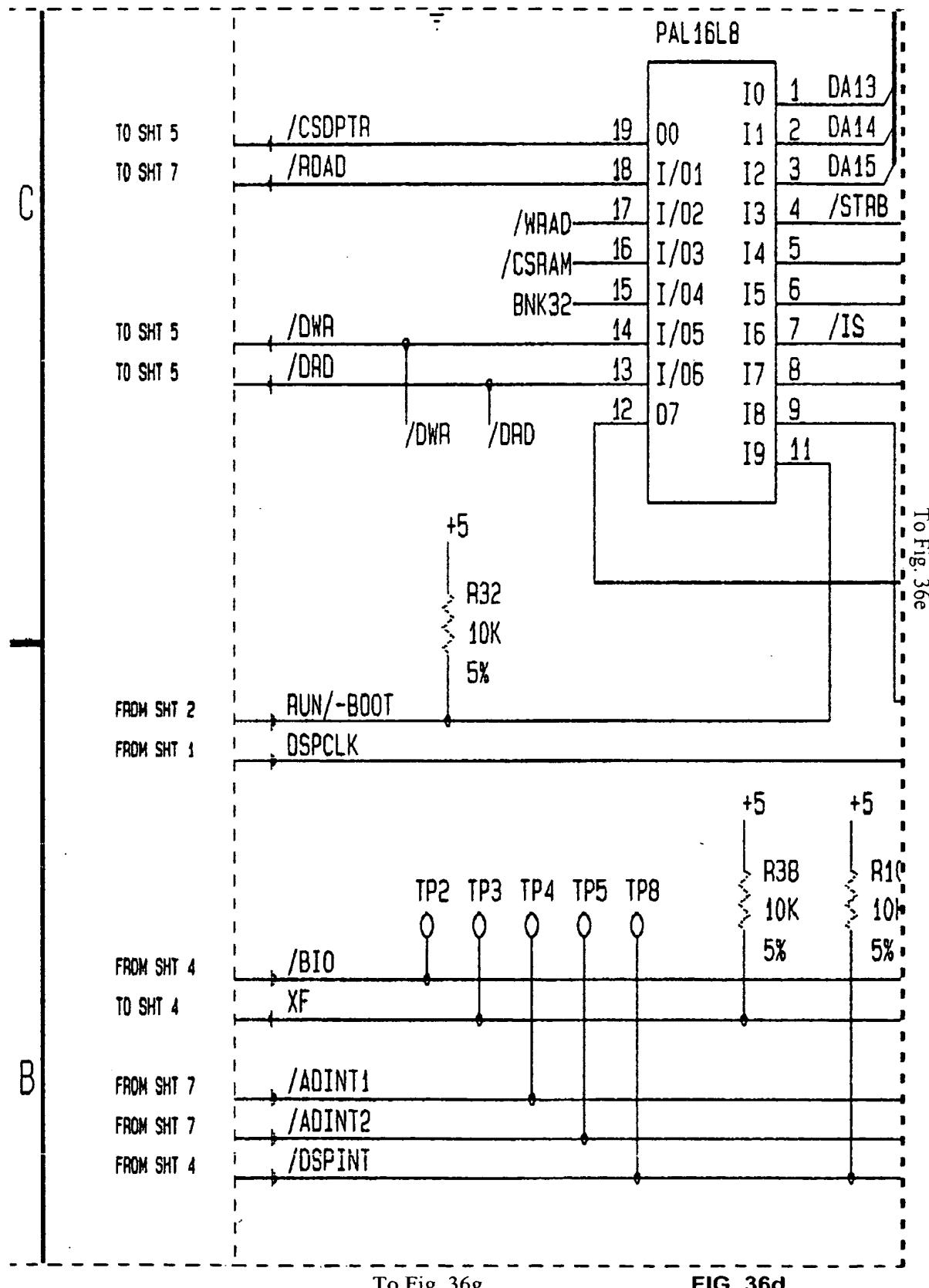
Attorney Docket No. 6270/76, Serial No. 10/068,431

111 6b 207

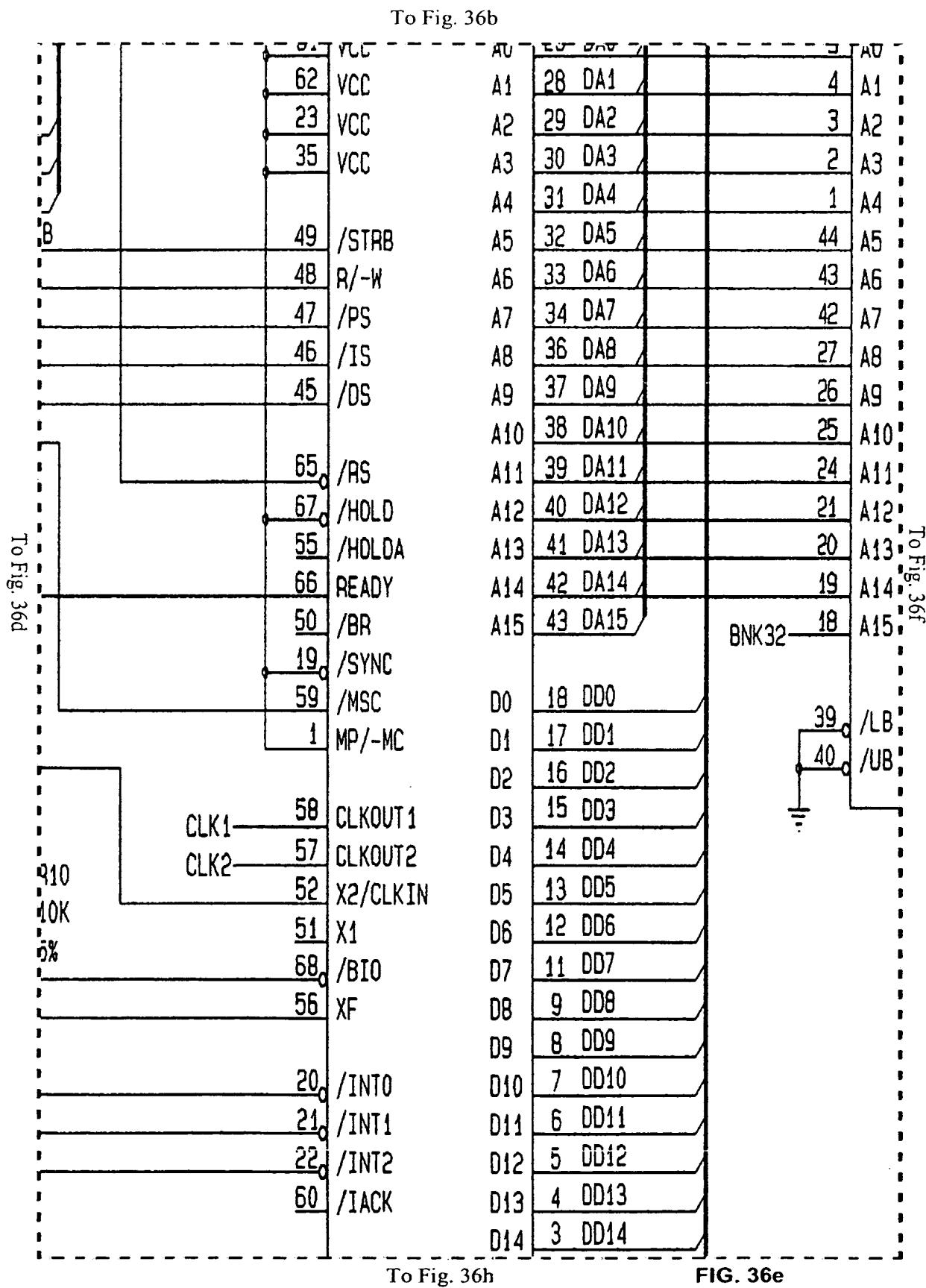


112 08 2-07

To Fig. 36a



113 6 207



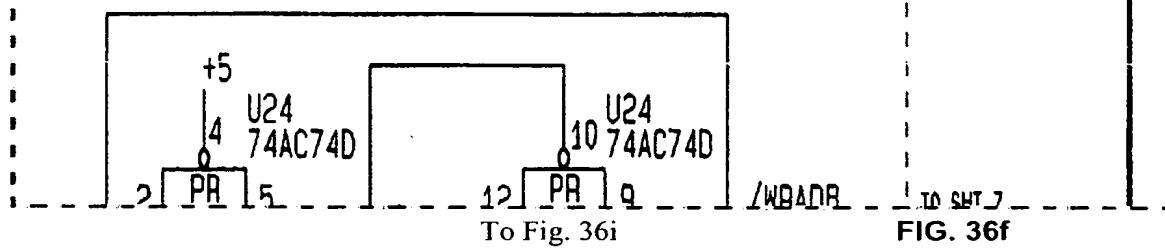
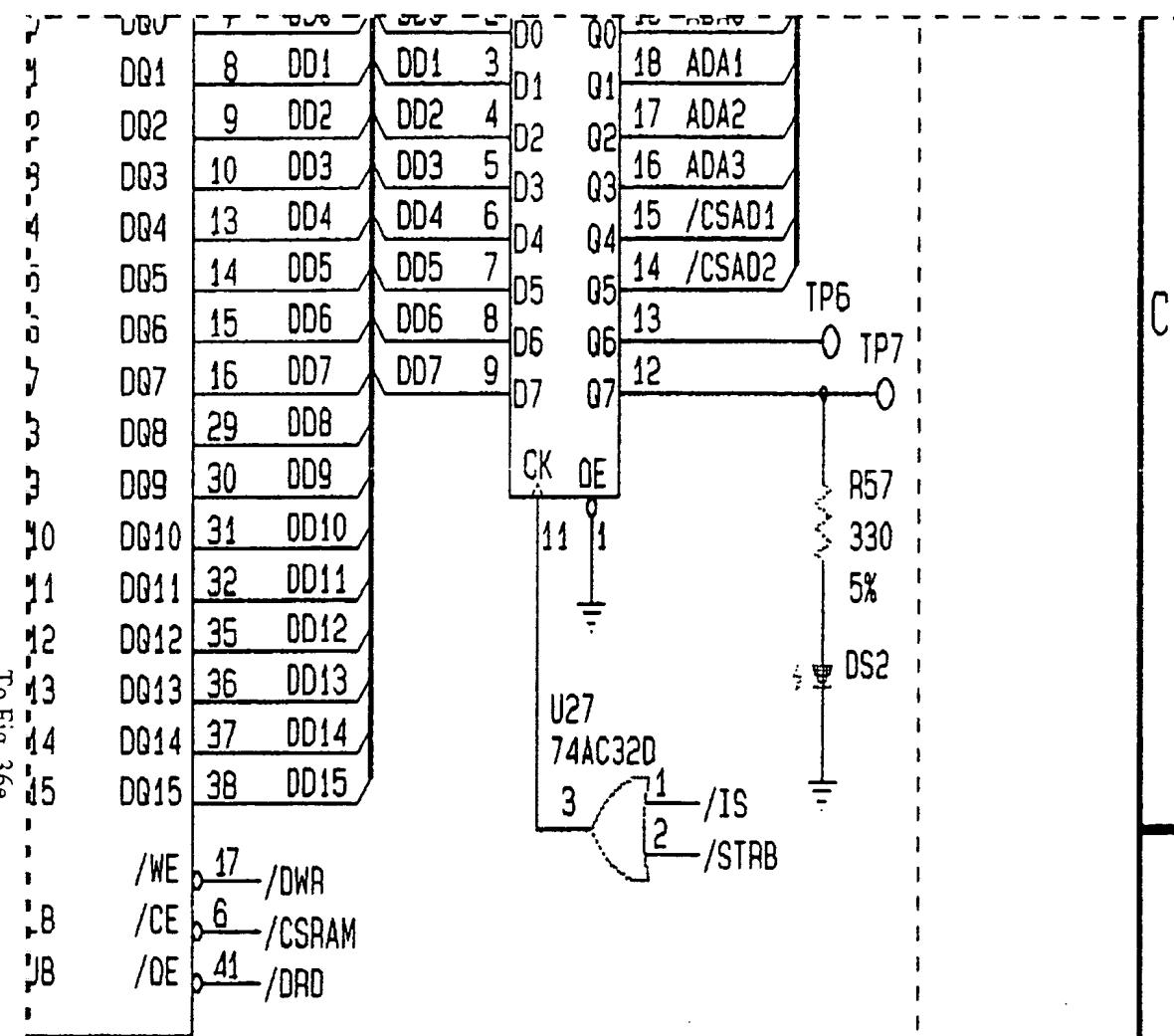
114 88 307

Attorney Docket No. 6270/76, Serial No. 10/068,431

8. 621.07.0; Serial No. 76,000,48.

To Fig. 36e

To Fig. 36c



115 of 207

To Fig. 36d

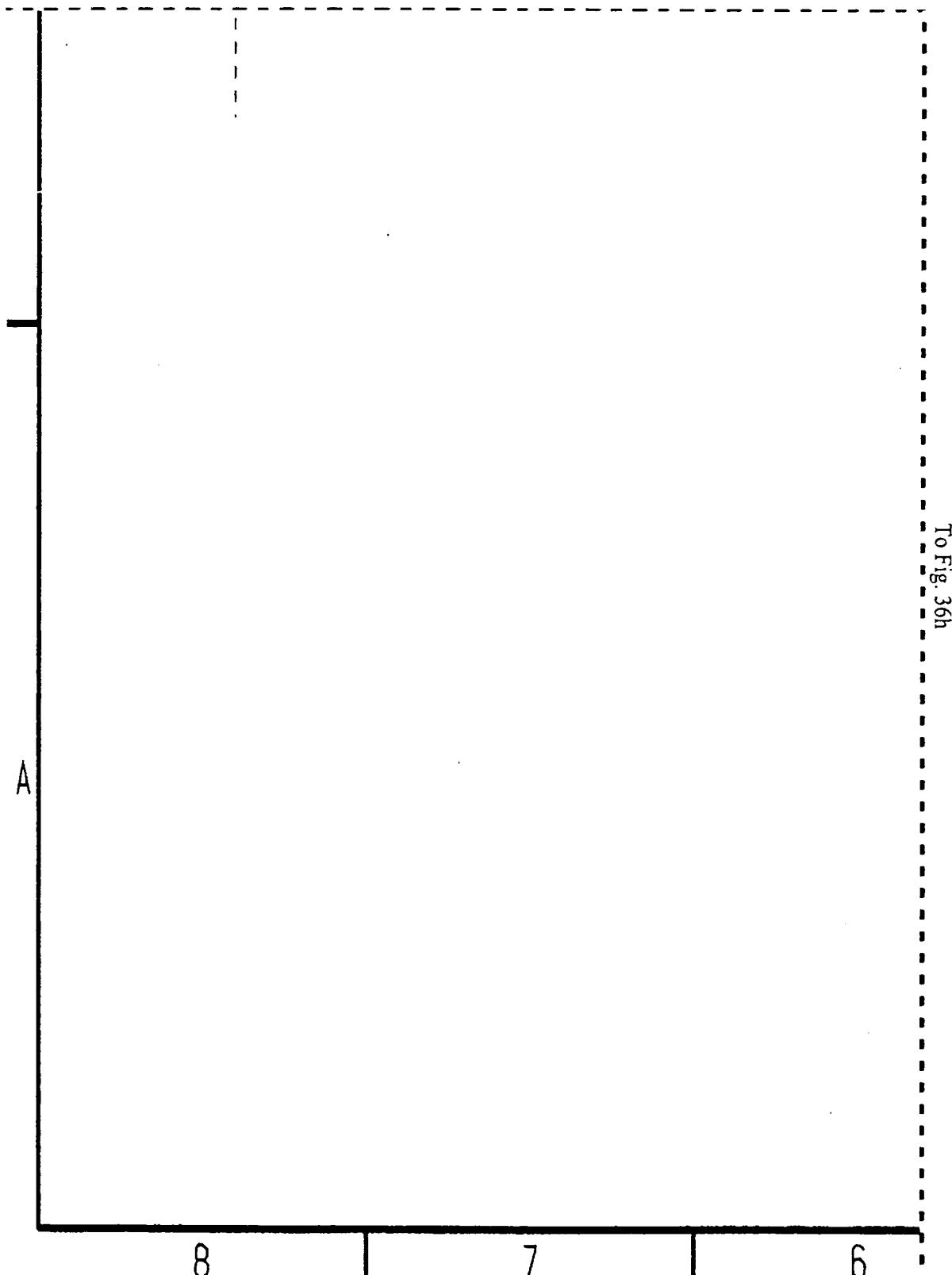
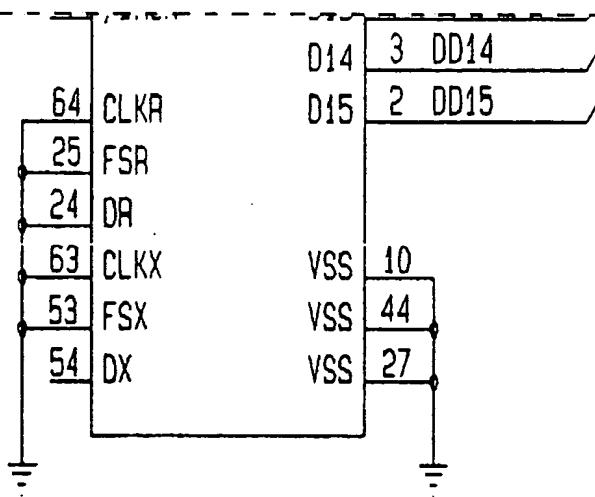


FIG. 36g

116 66 > 07

To Fig. 36e



To Fig. 36i

This schematic  
proprietary  
configuration  
are issued to  
or use shall  
of CD Power

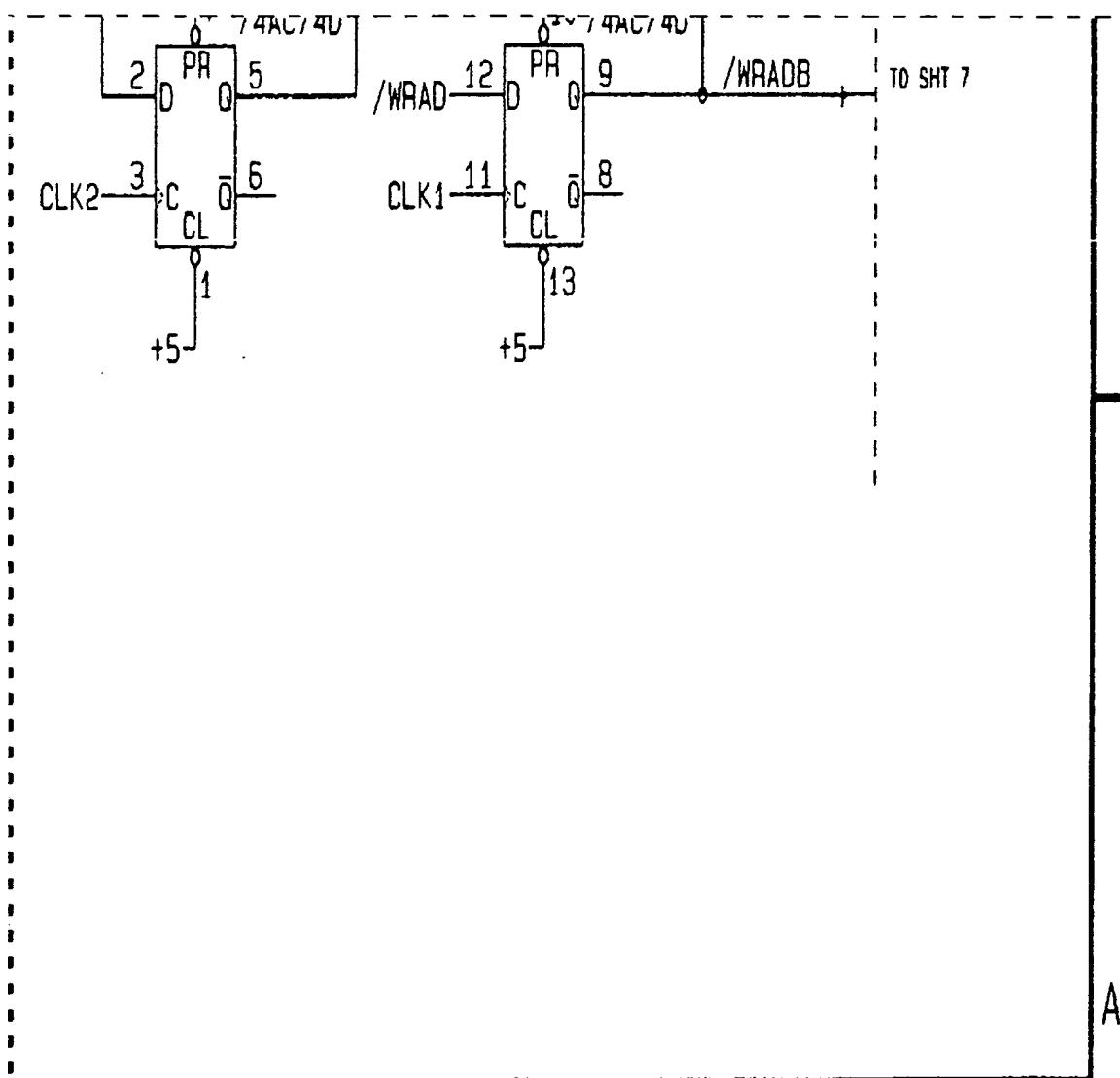
5

4

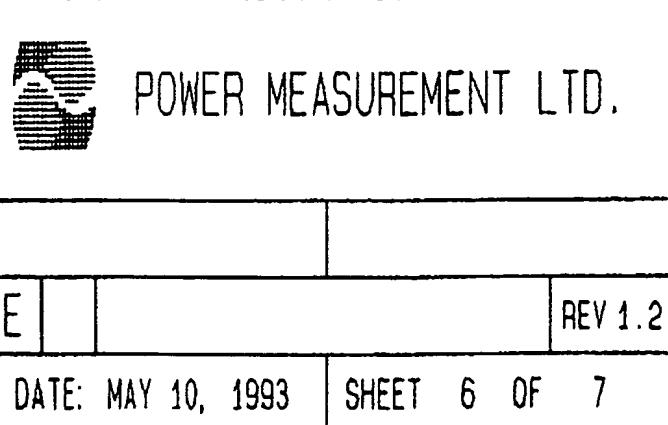
FIG. 36h

117 0 207

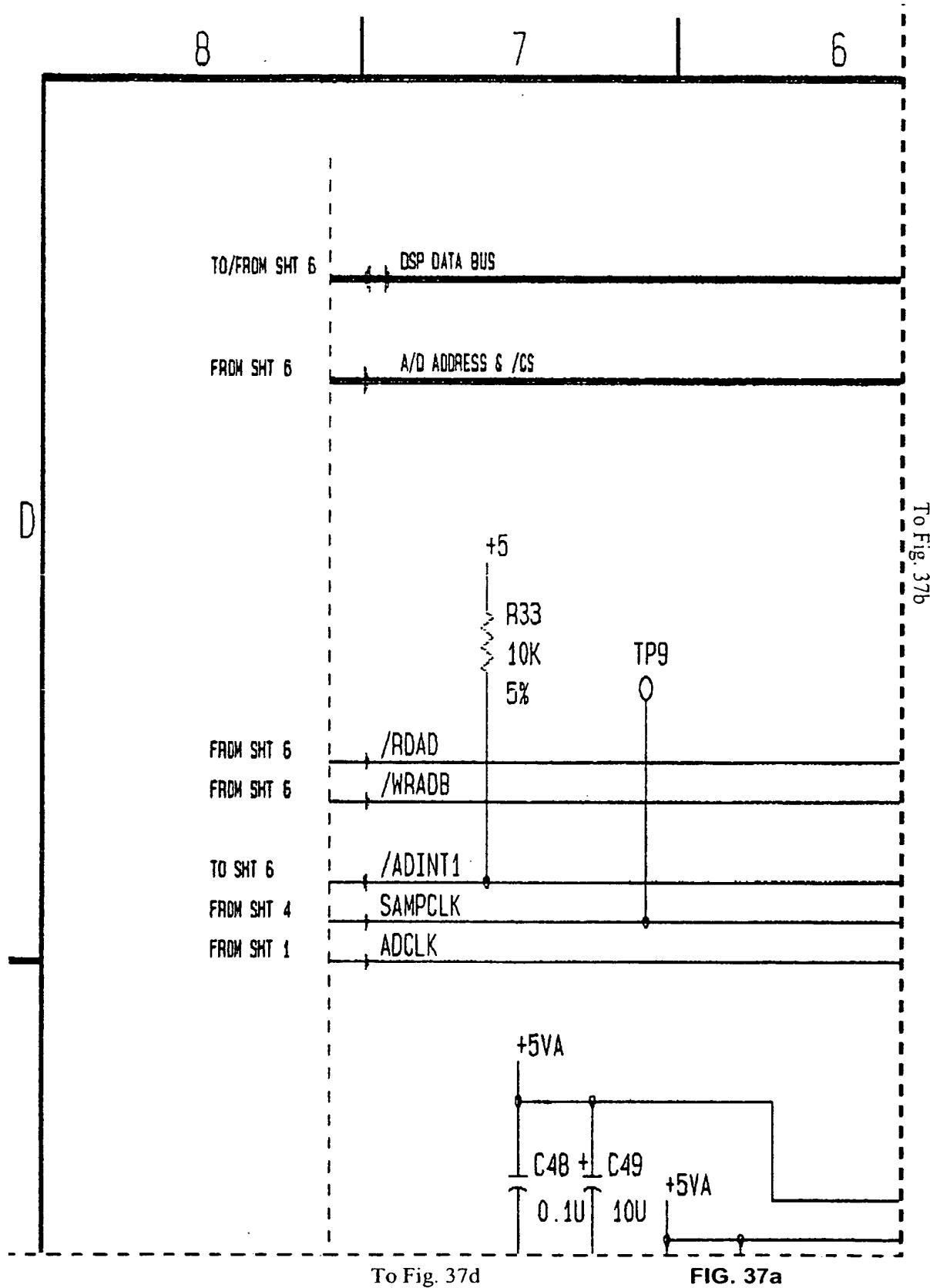
To Fig. 36f



Technical and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.



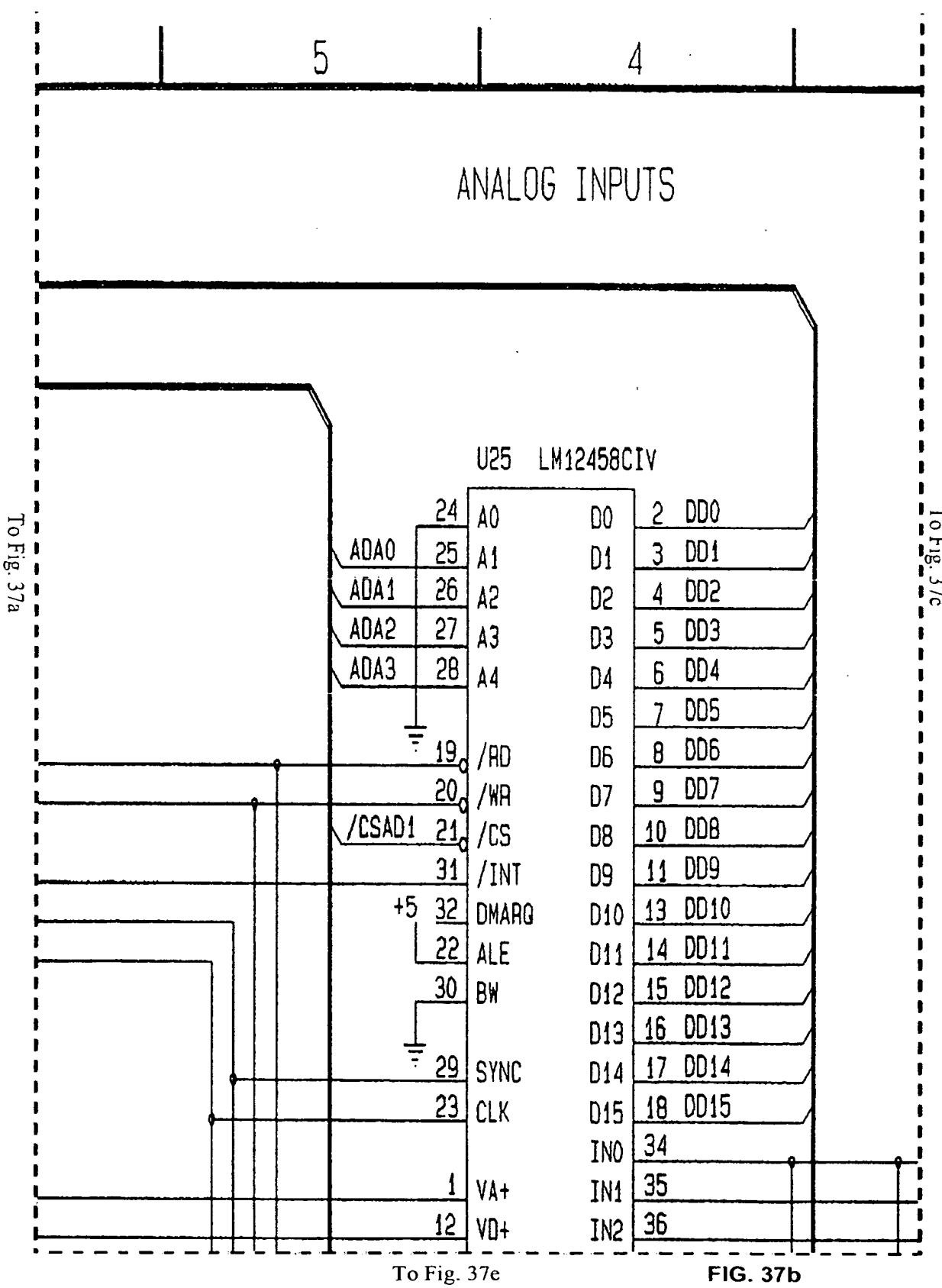
118 03 01

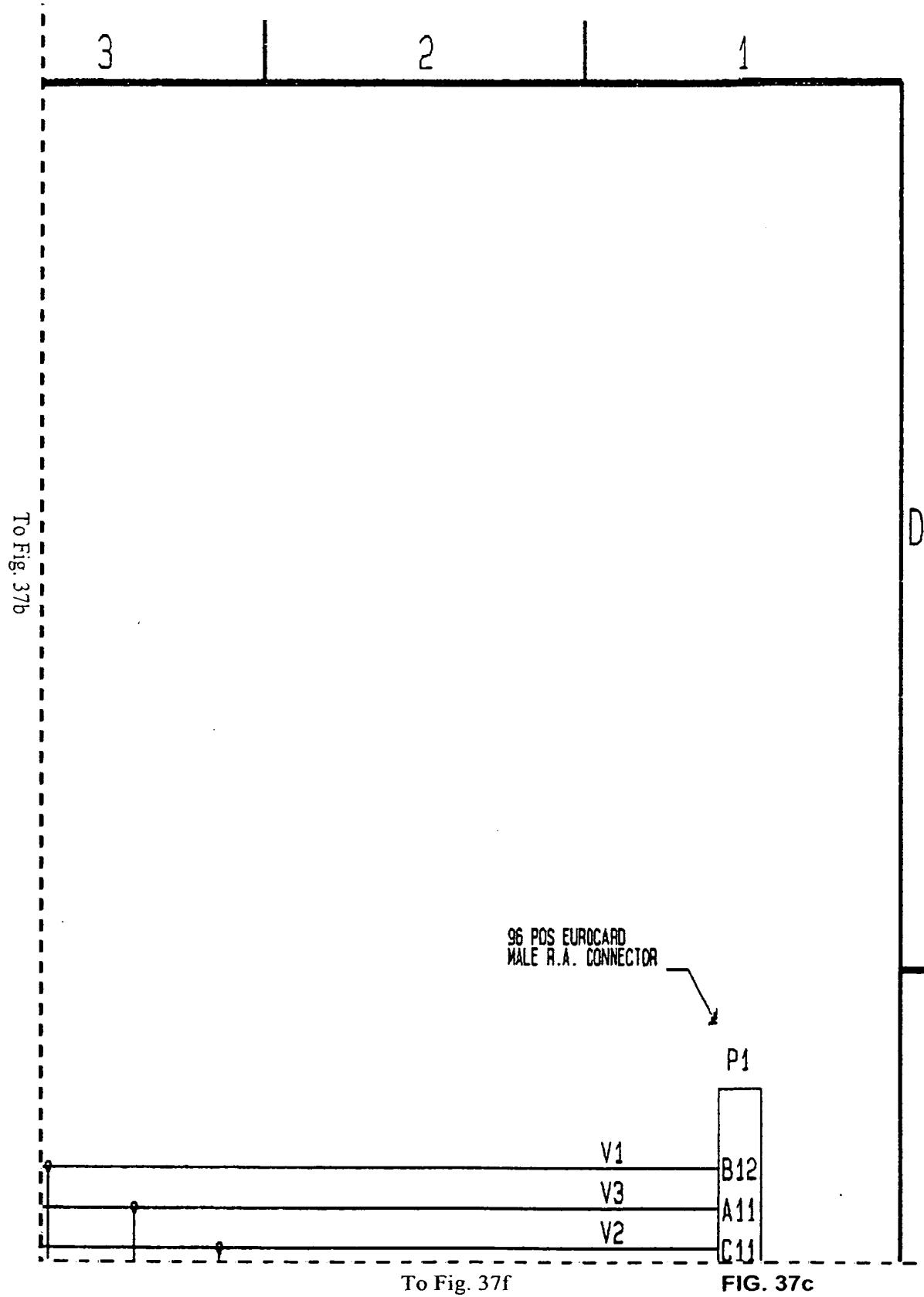


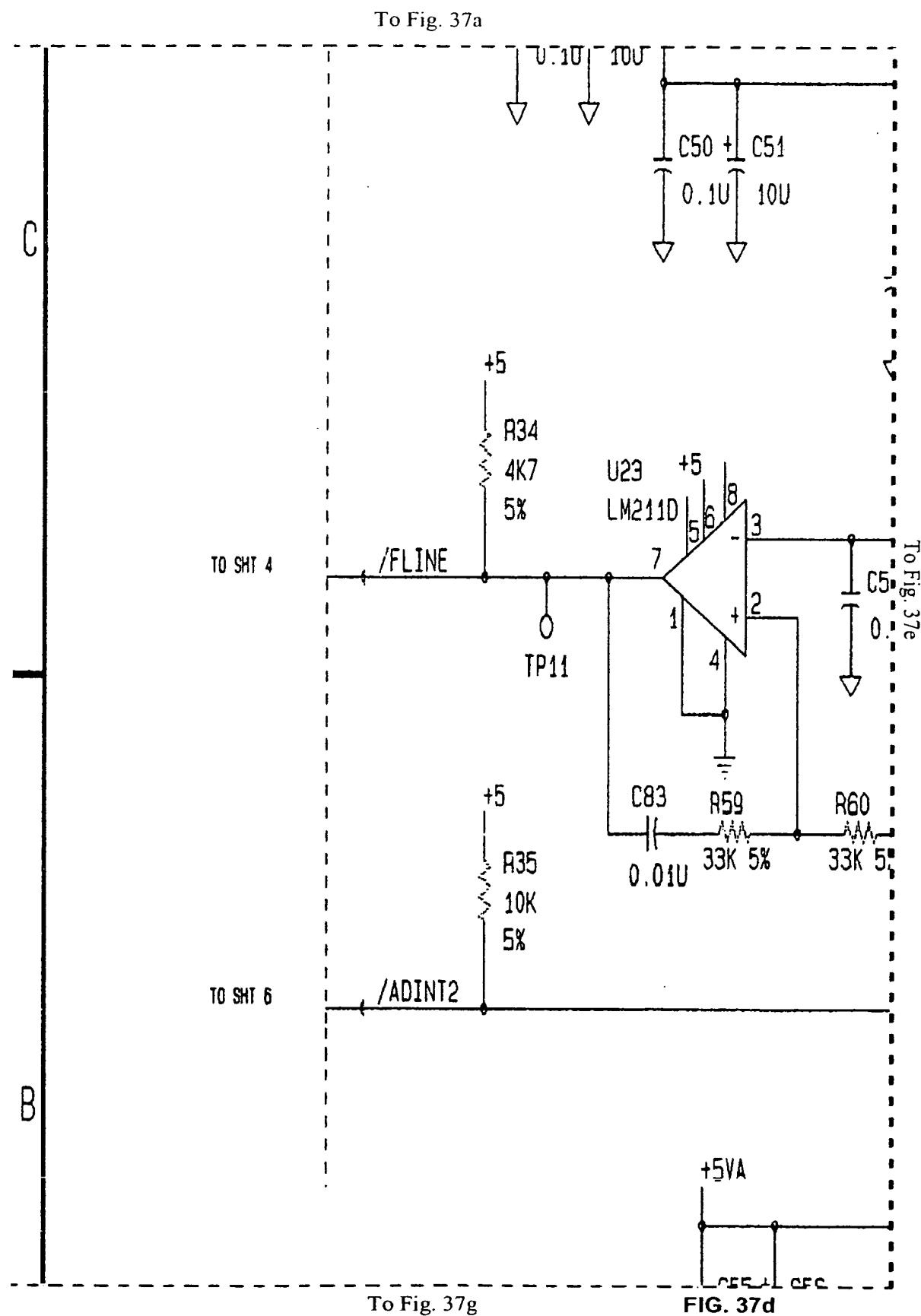
To Fig. 37d

FIG. 37a

119 08 207

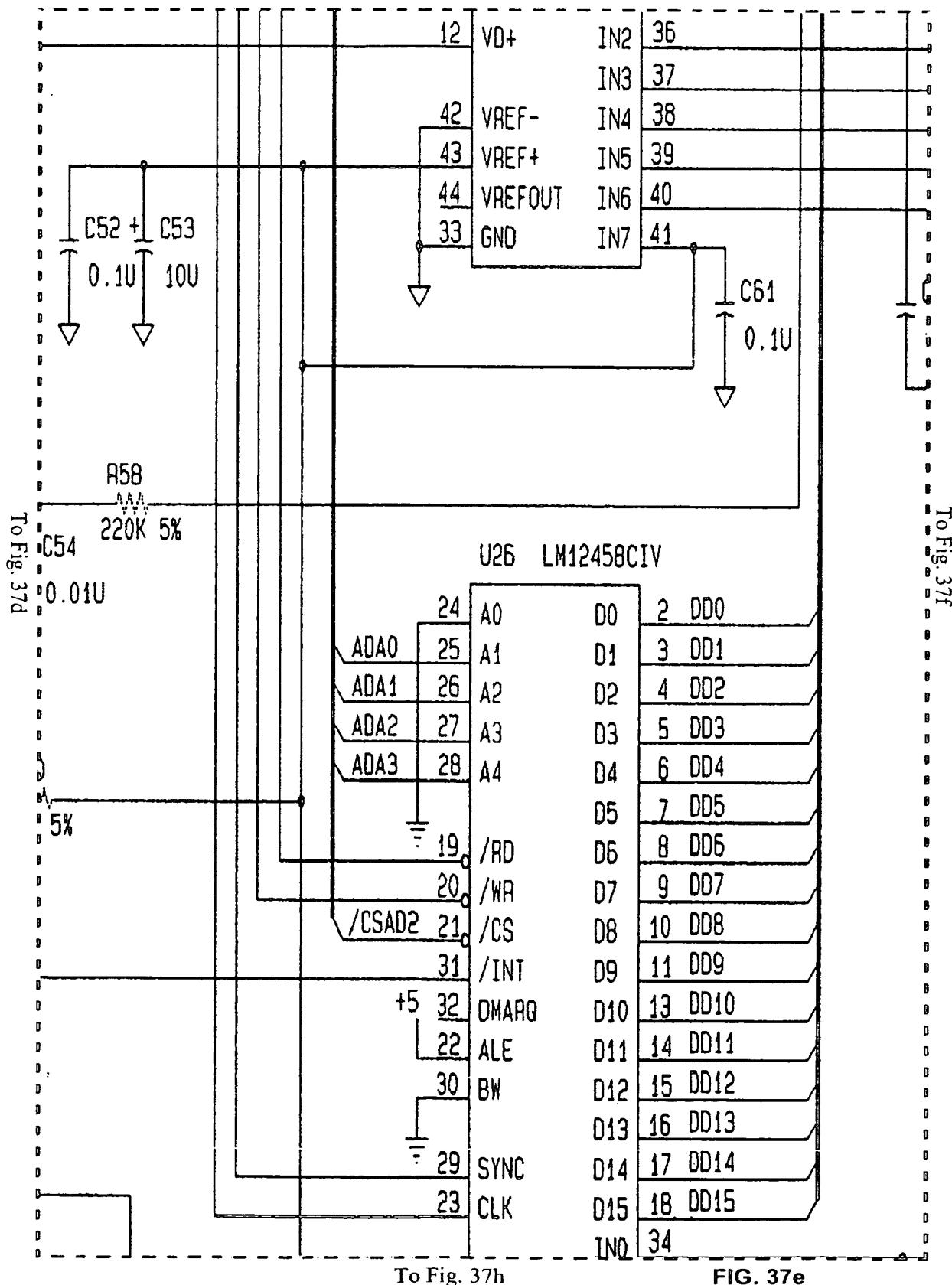






122 8 207

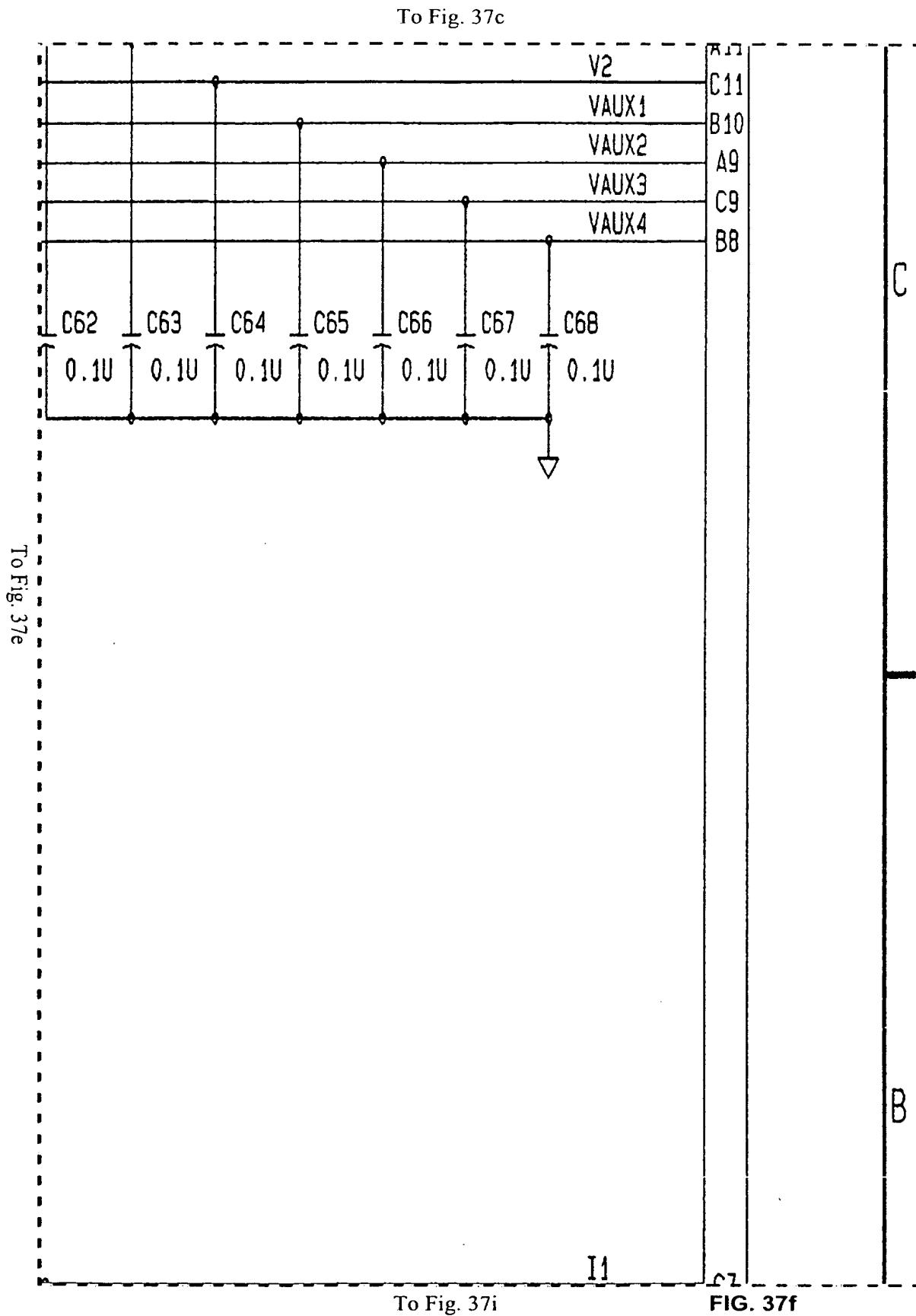
To Fig. 37b



To Fig. 37h

FIG. 37e

123 of 267



184 8207

To Fig. 37d

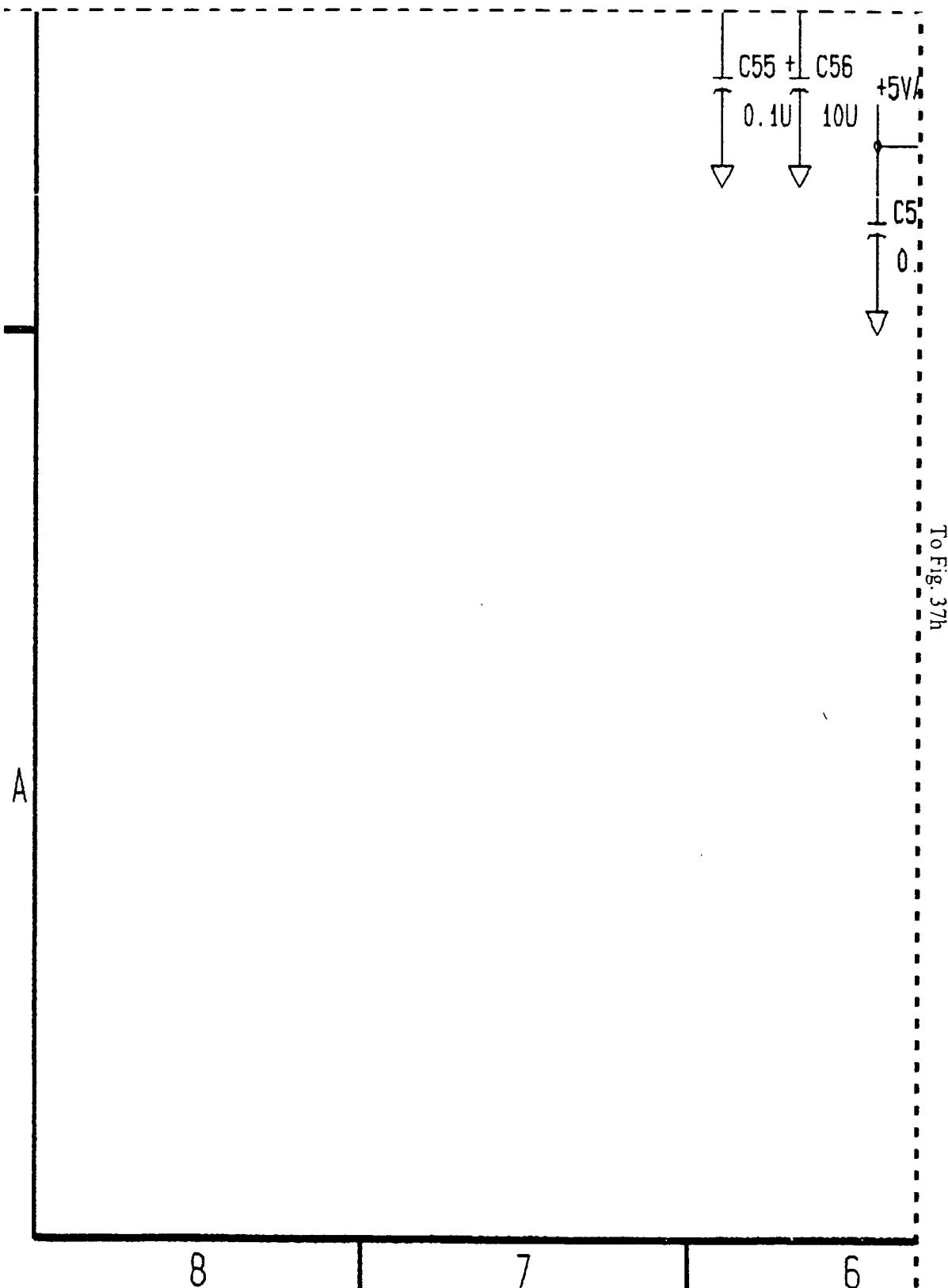
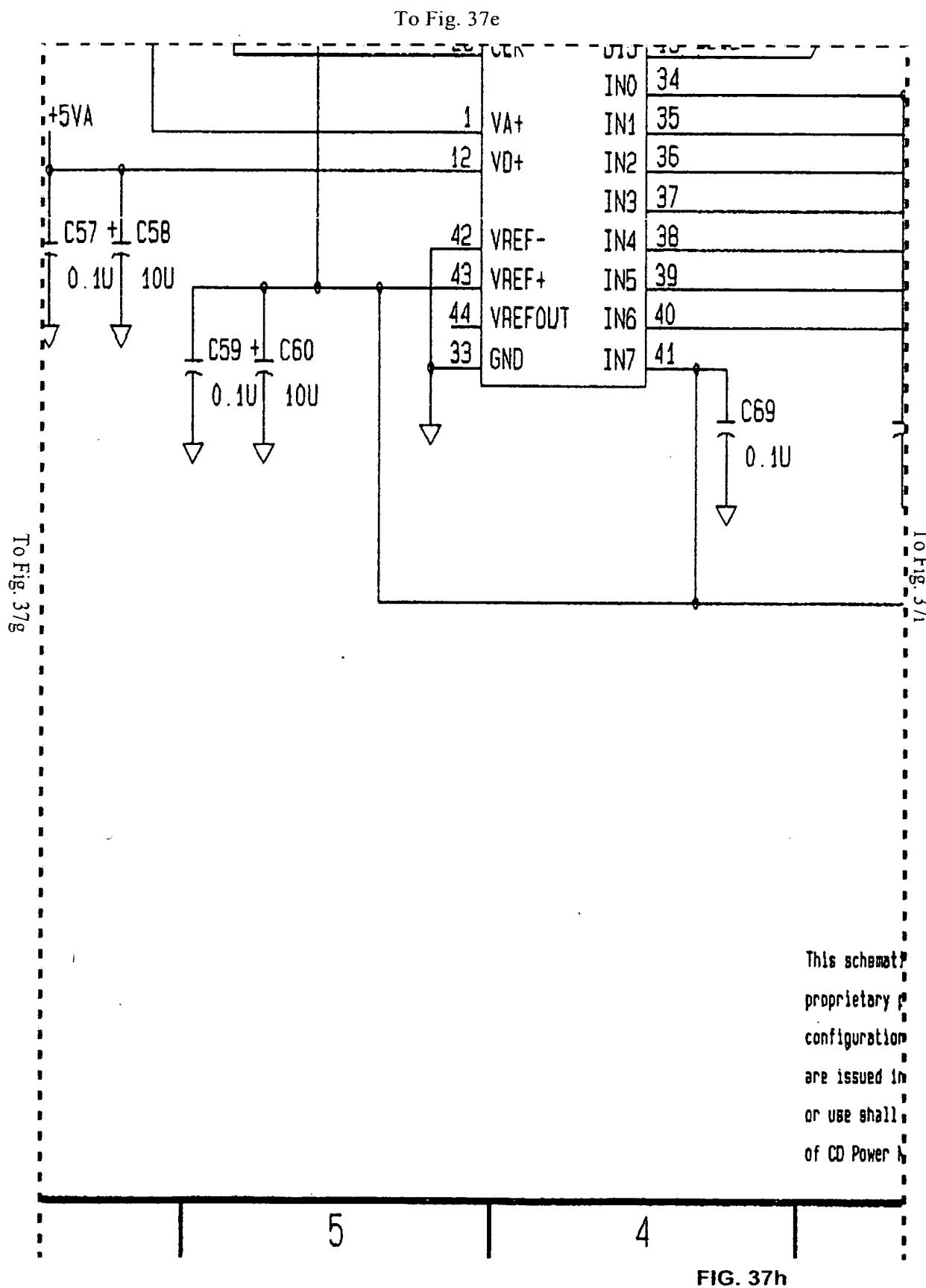


FIG. 37g

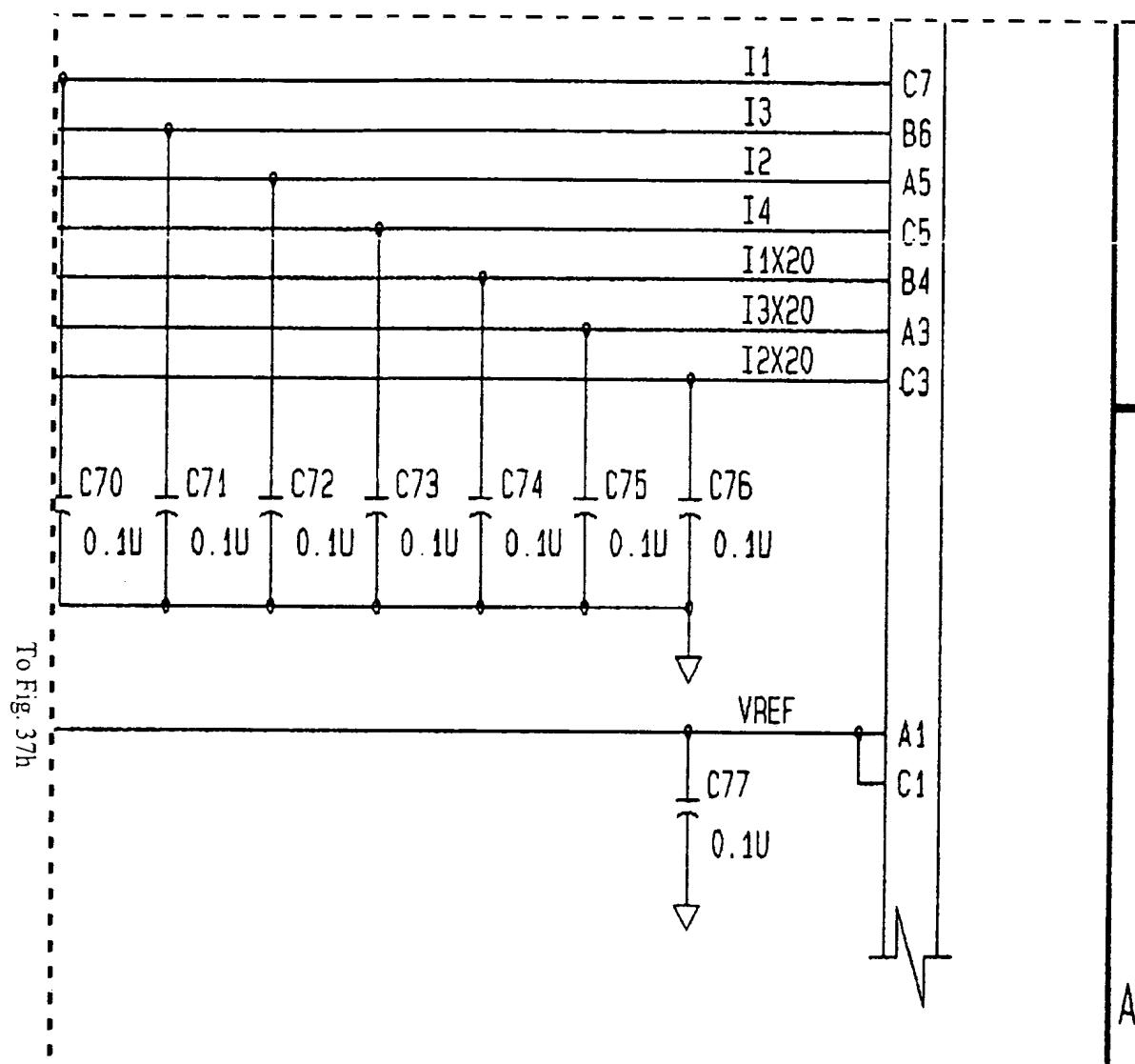
To Fig. 37h

125 8807



186 18 207

To Fig. 37f



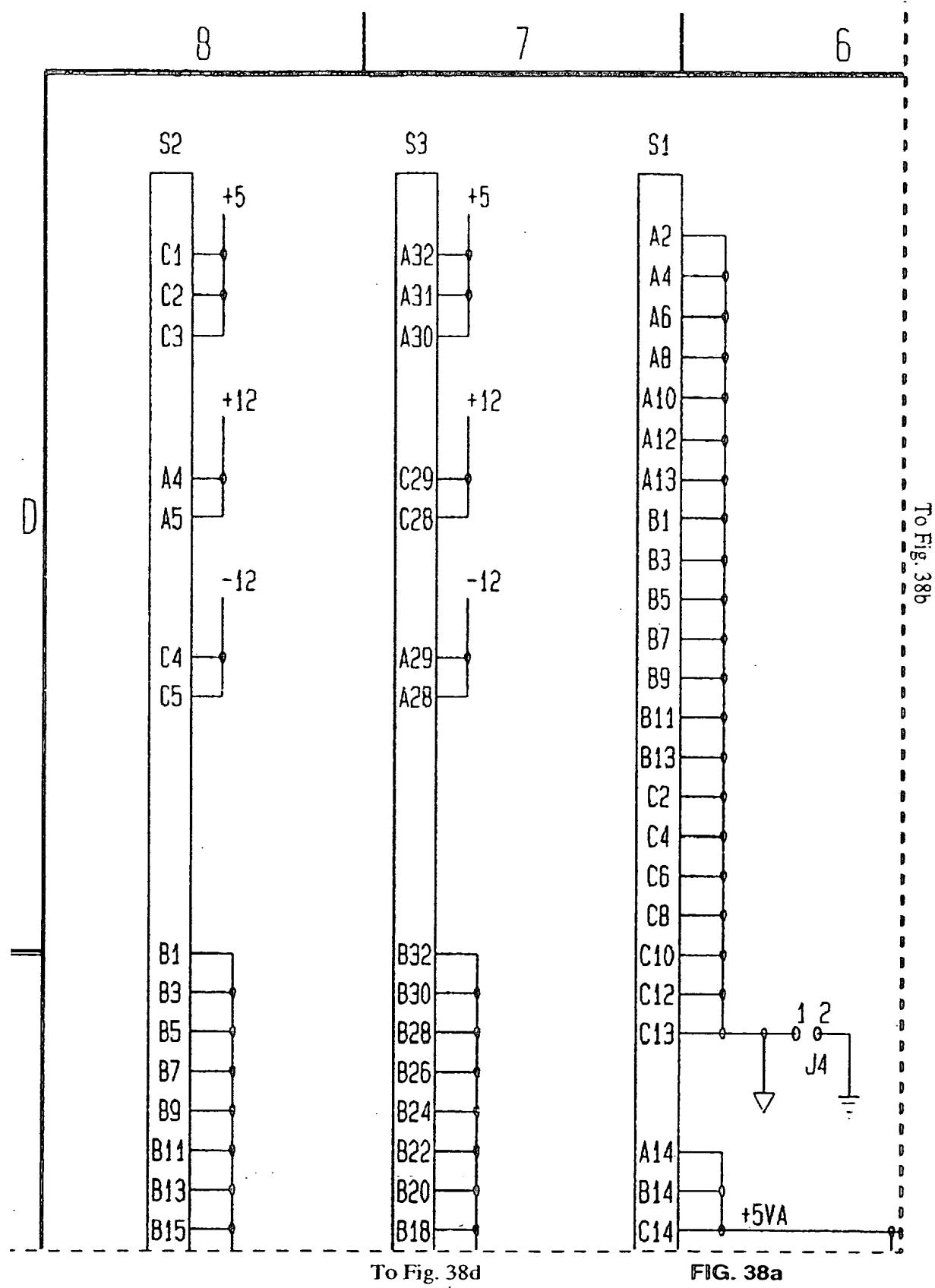
These drawings and/or specifications are the  
property, trade secrets, or patented  
inventions of CD Power Measurement Ltd. and  
are held in strict confidence. No reproduction  
or disclosure may be made without prior written consent  
of CD Power Measurement Ltd.



POWER MEASUREMENT LTD.

E			REV 1.2
DATE: MAY 12, 1993	SHEET	7 OF 7	

127 8 307



128 A 307

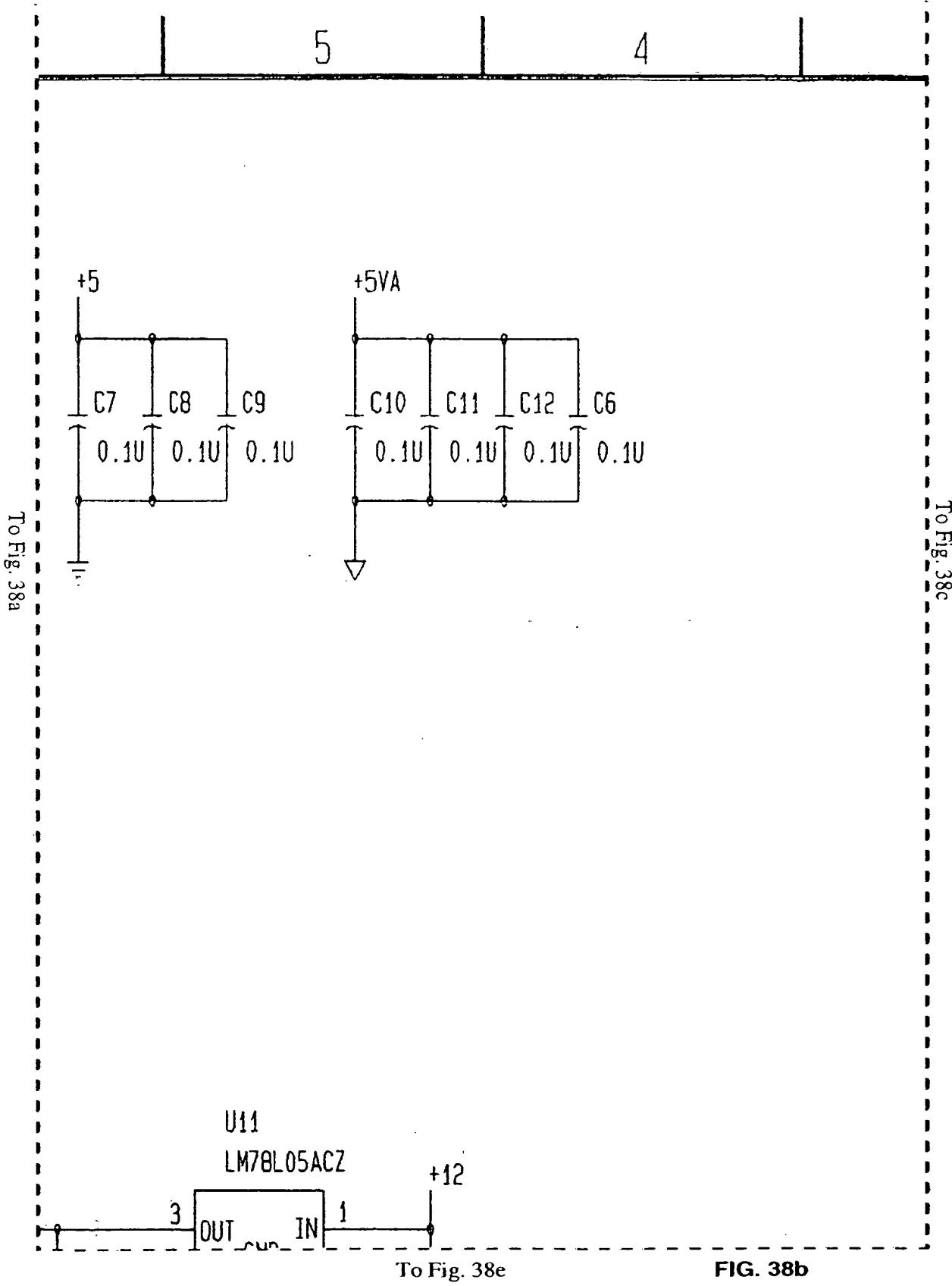
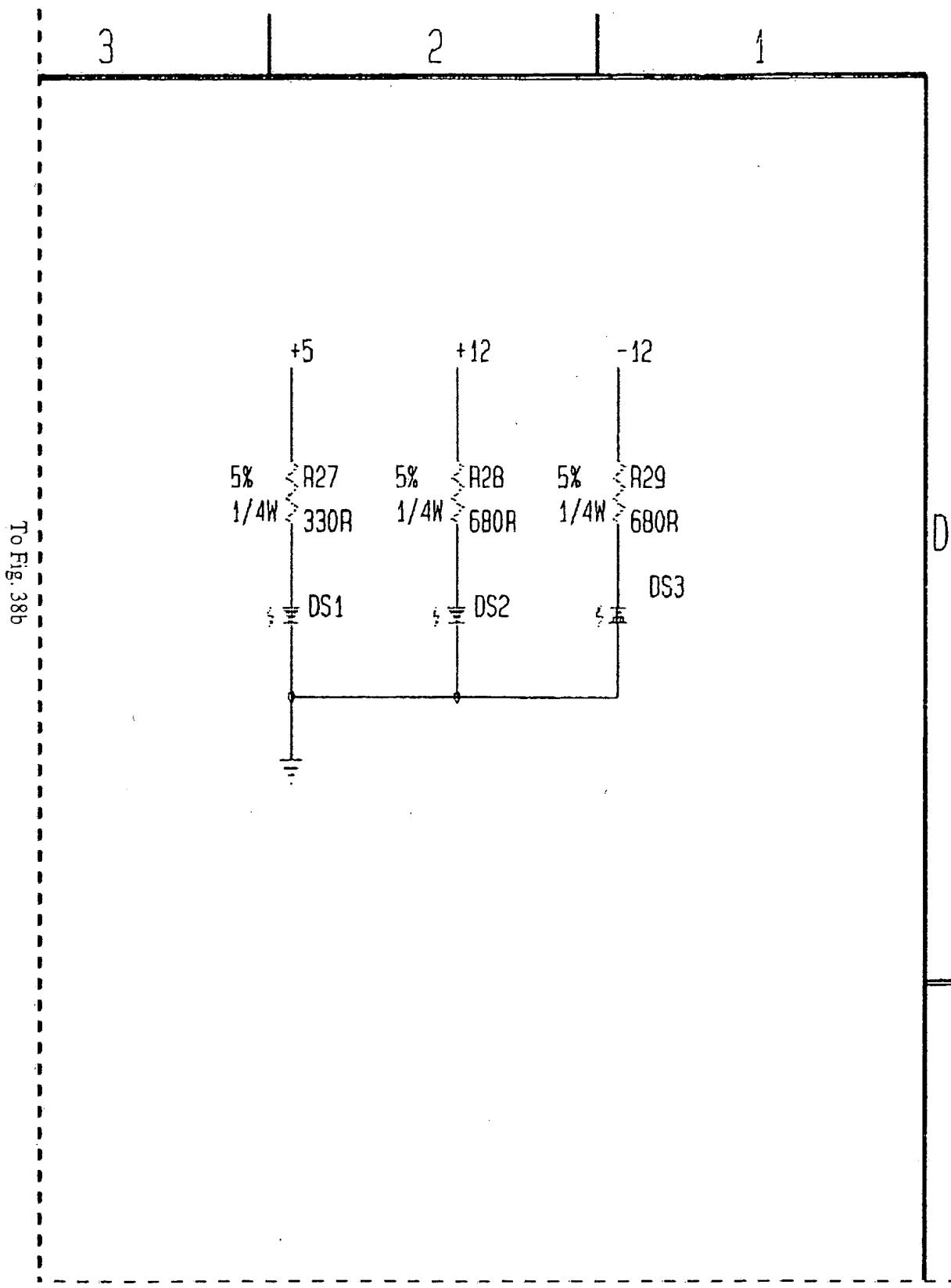


FIG. 38b

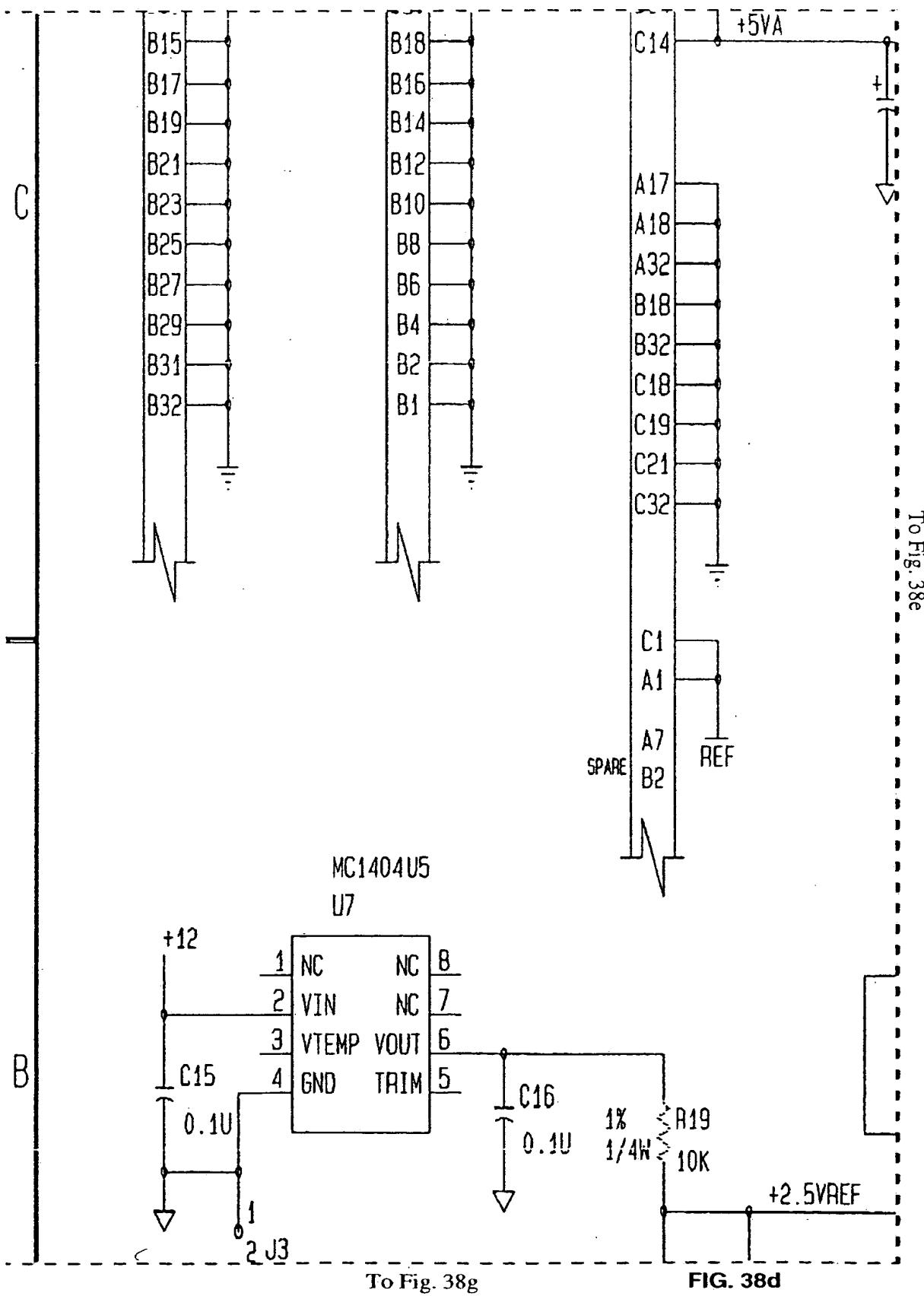
129 08 207



To Fig. 38f

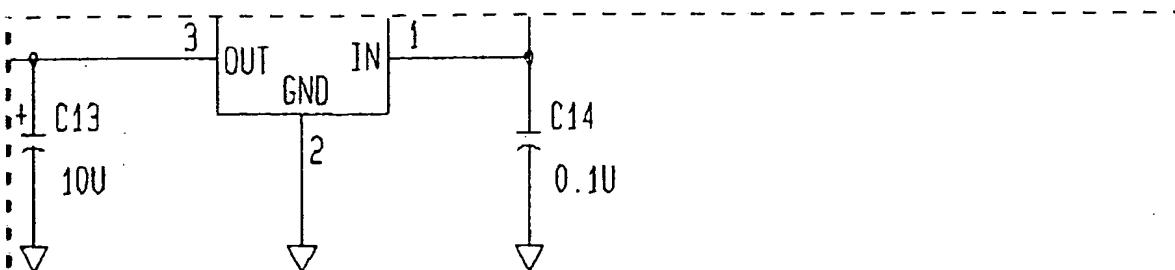
FIG. 38c

To Fig. 38a



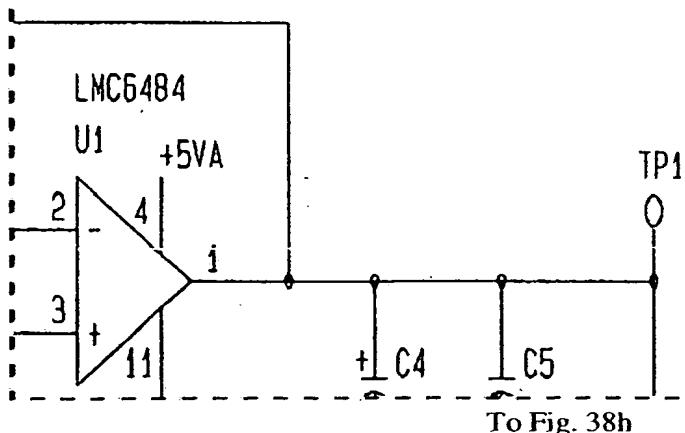
131 86207

To Fig. 38b



To Fig. 38d

To Fig. 38f



To Fig. 38h

FIG. 38e

Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

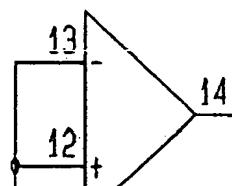
132 8 207

To Fig. 38c

To Fig. 38e

SPARES

LMC6484  
U10



To Fig. 38i

FIG. 38f

B

To Fig. 38d

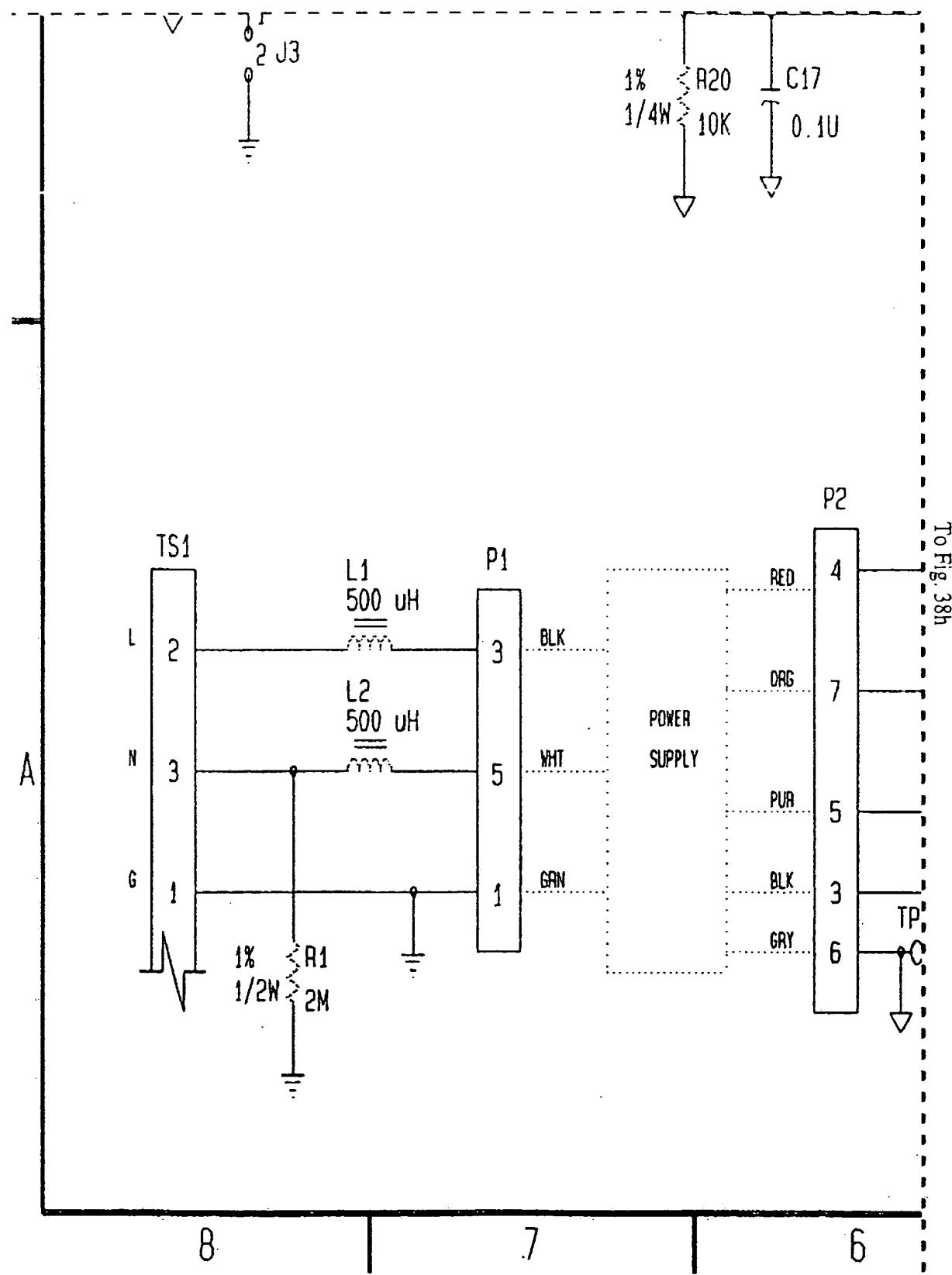


FIG. 38g

134 8 207

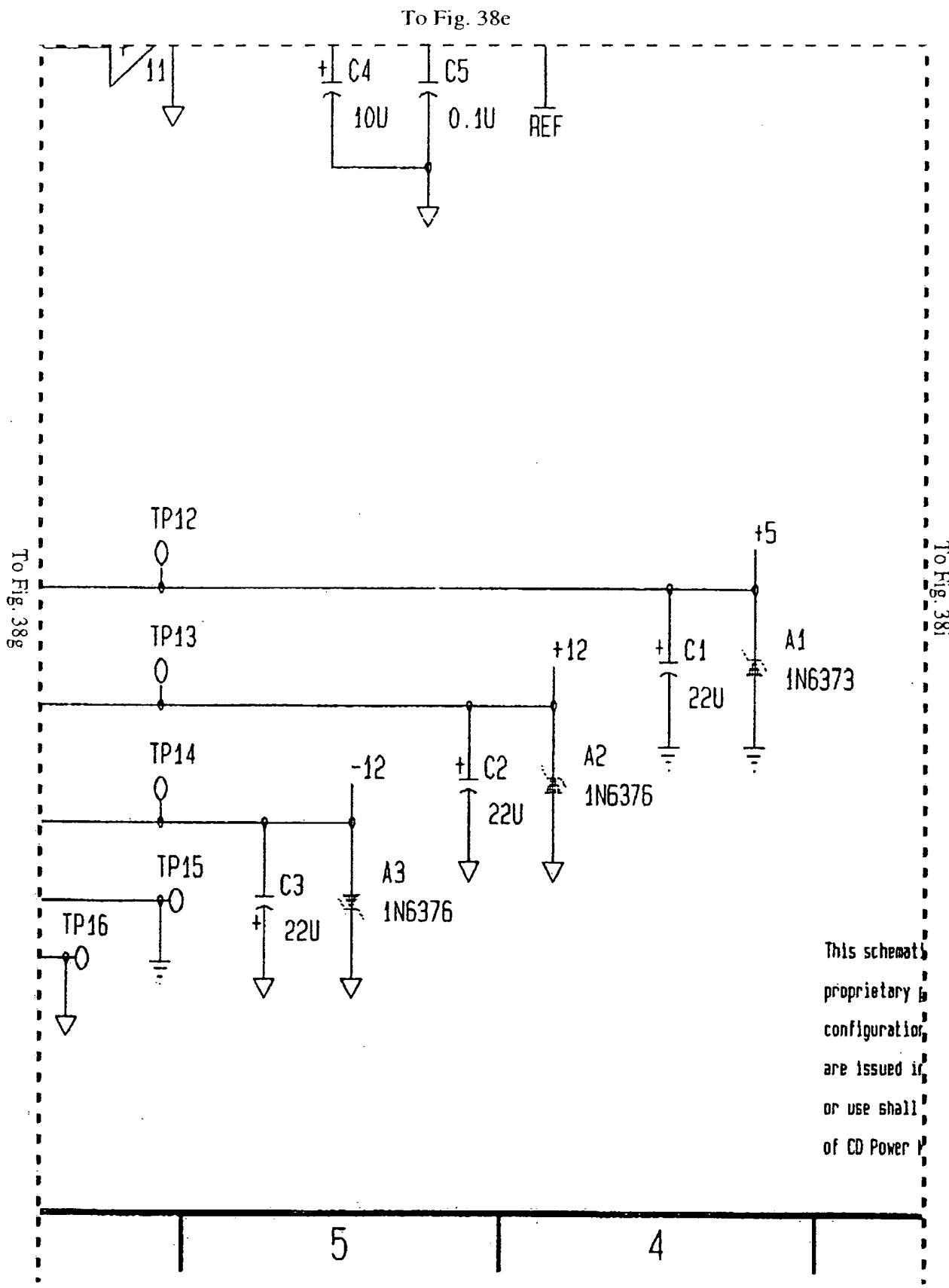
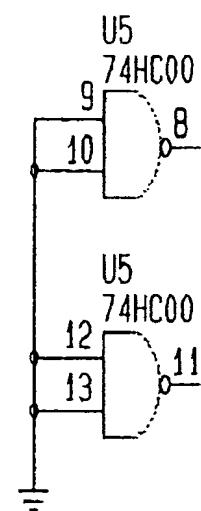


FIG. 38h

To Fig. 38f

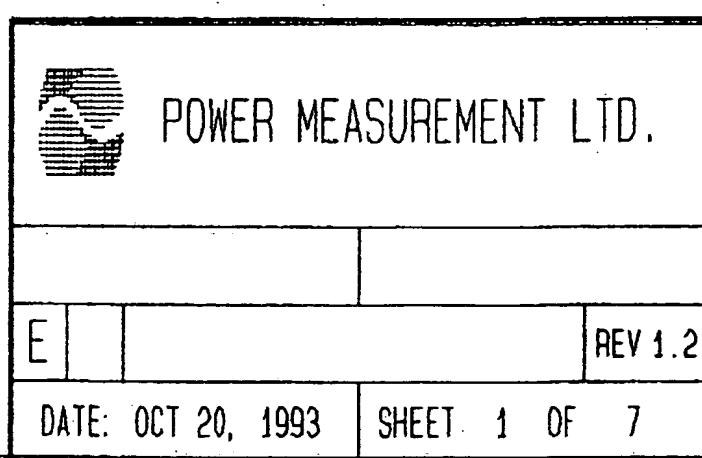


LAST USED: U11  
R39  
C30  
S6  
P4  
A16  
D53  
TP16  
J5  
PTC3  
TS3  
L2  
T4

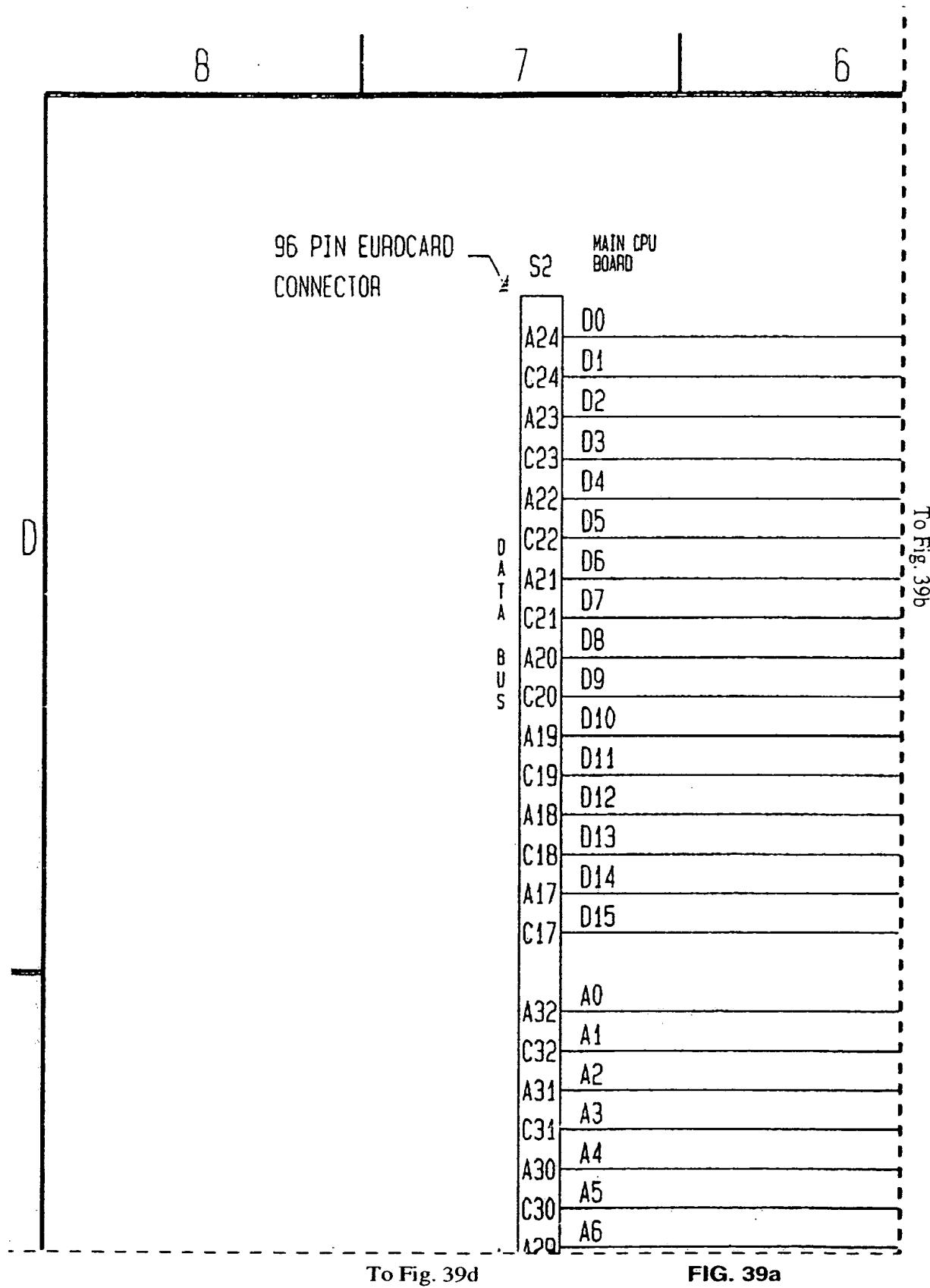
To Fig. 38b

A

These drawings and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.



136 08 207



13707 267

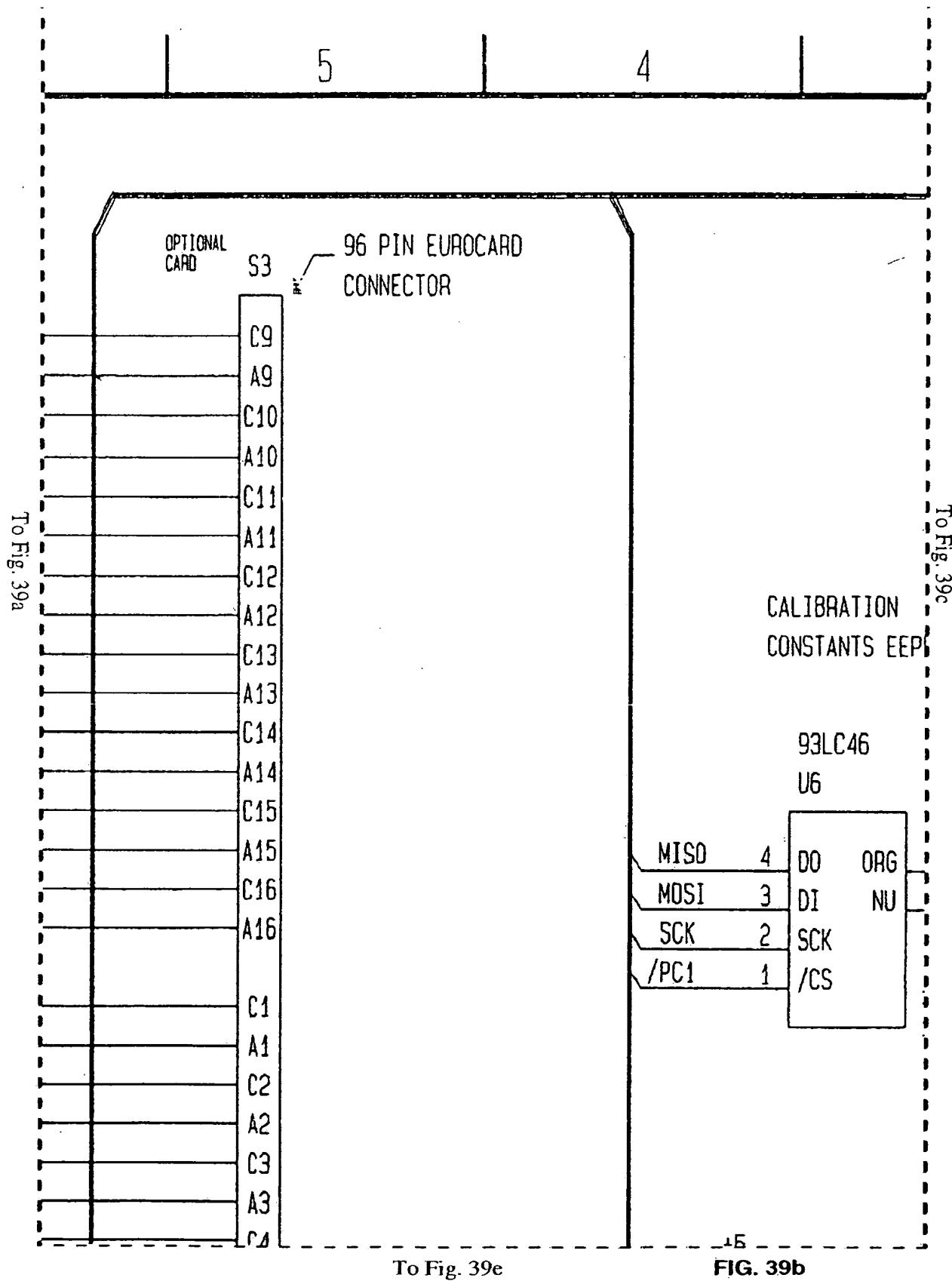
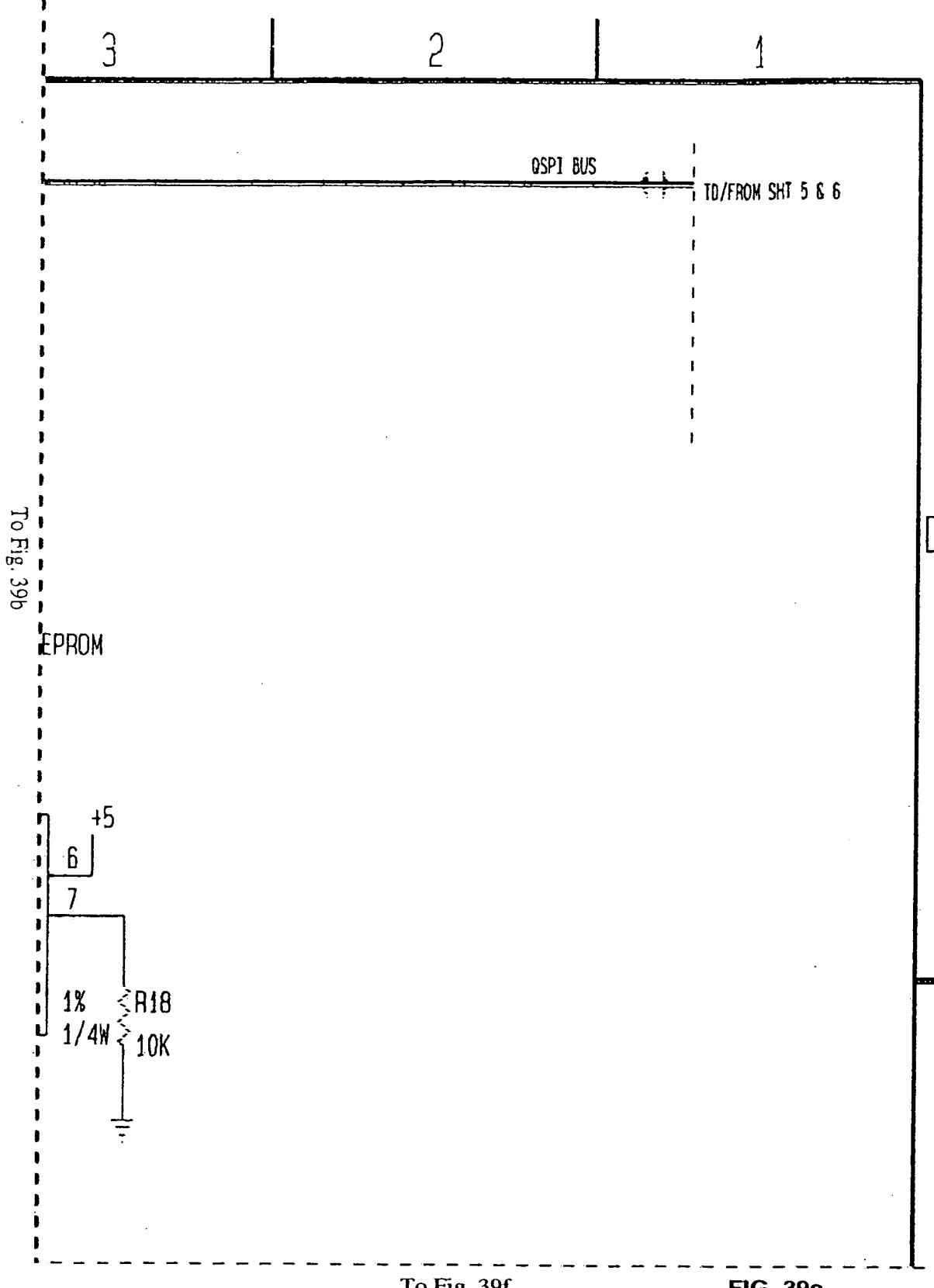


FIG. 39b

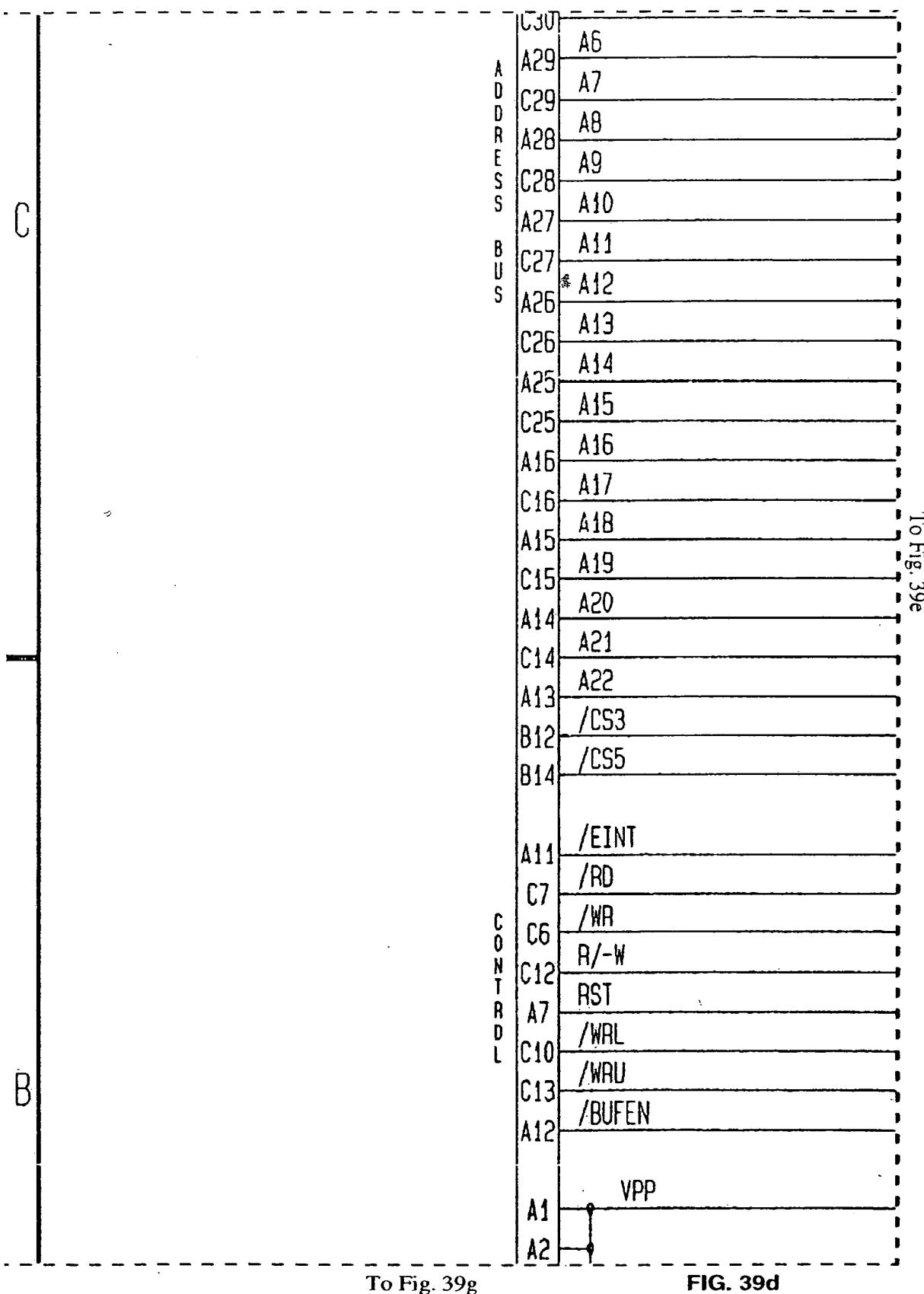
138 08 207



To Fig. 39f

FIG. 39c

To Fig. 39a

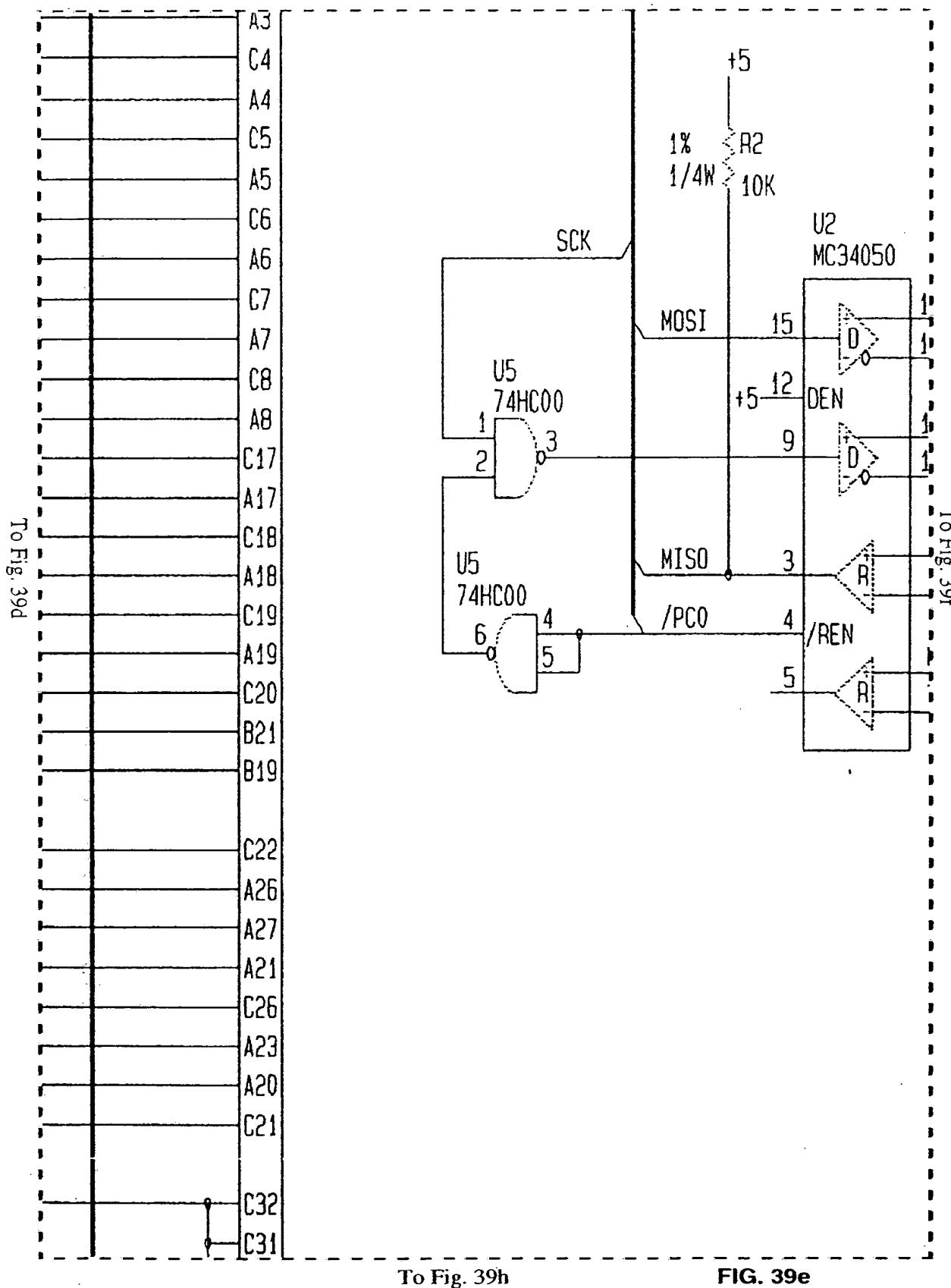


To Fig. 39g

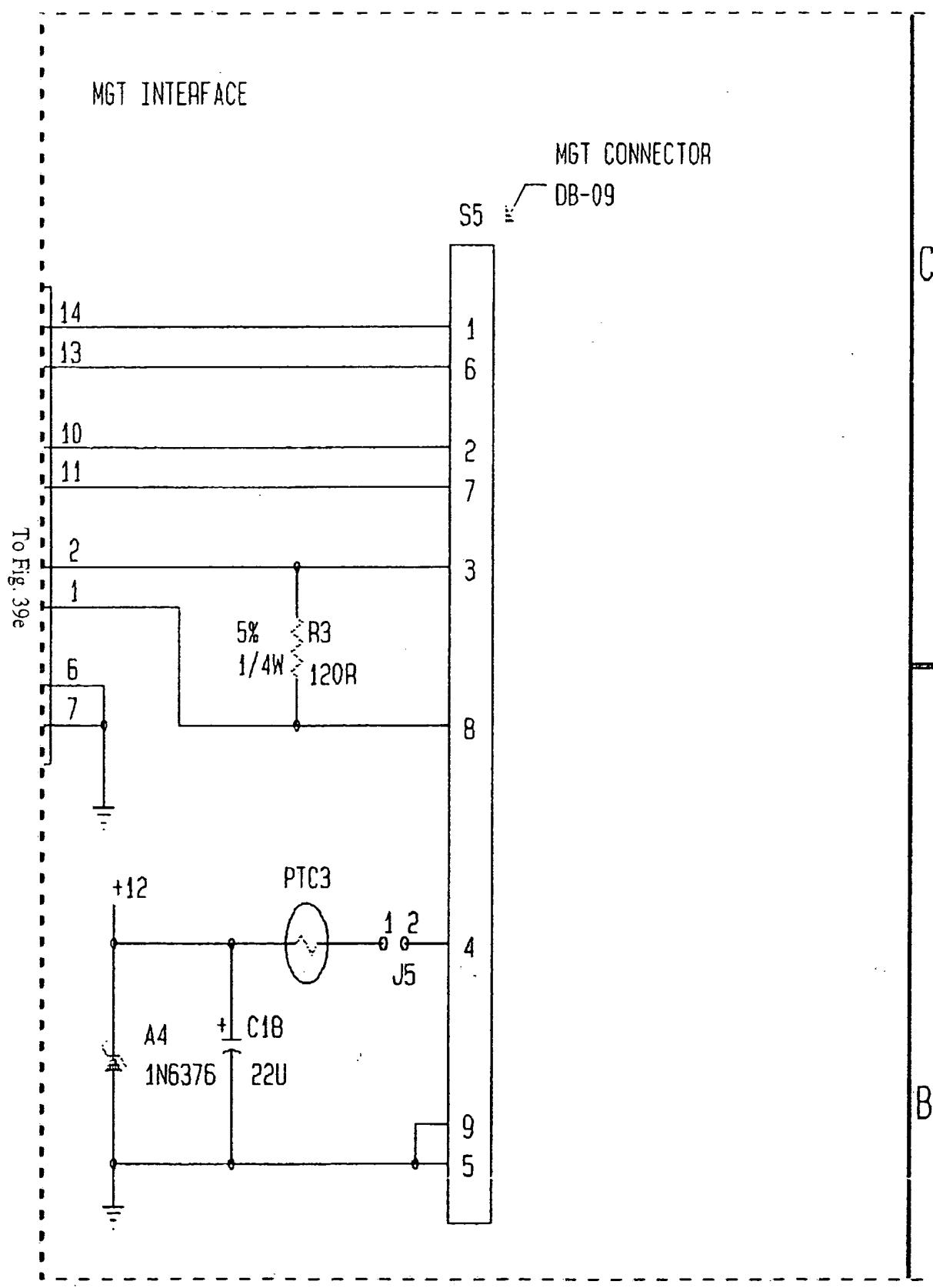
FIG. 39d

140 9 207

To Fig. 39b



To Fig. 39c

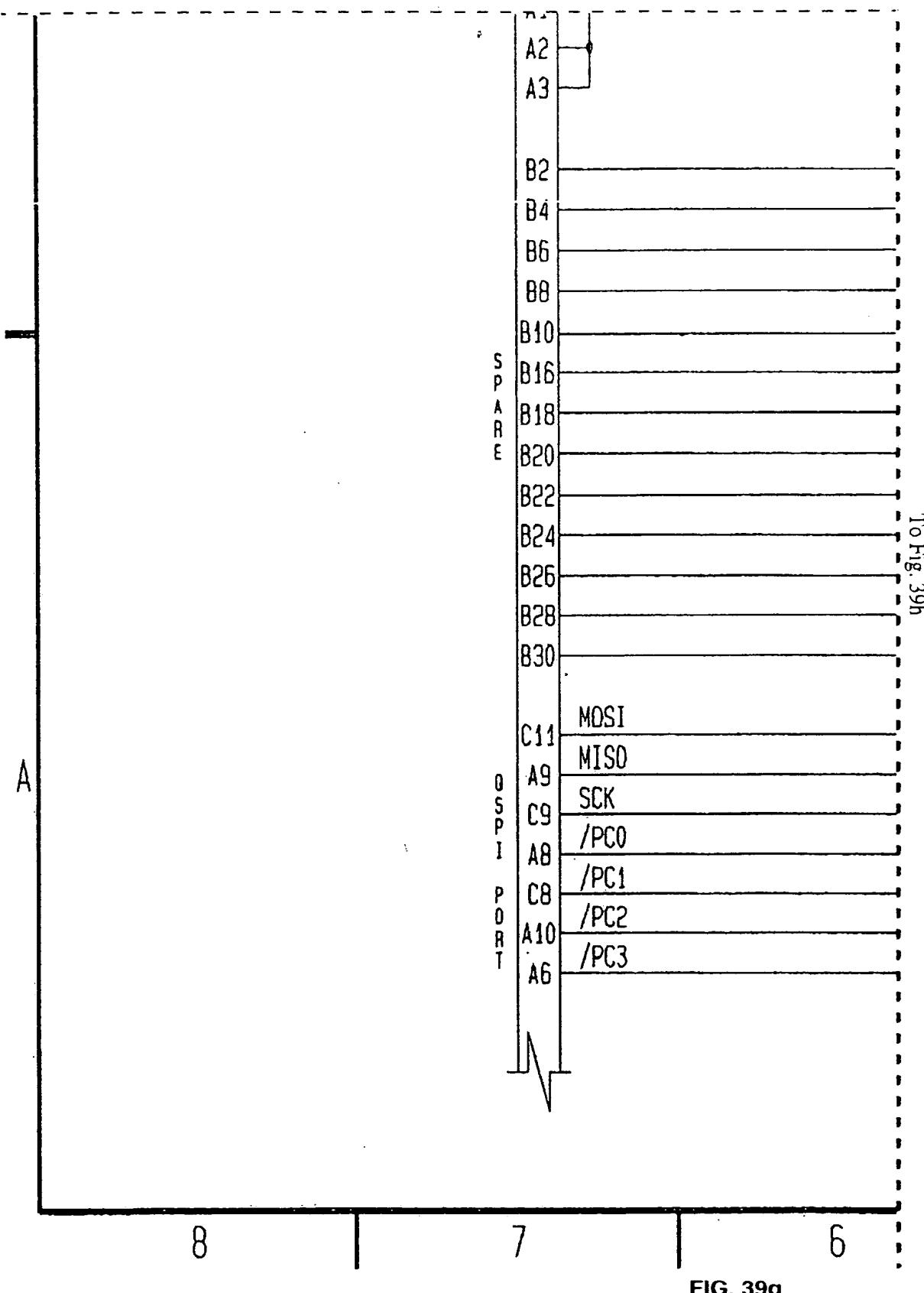


To Fig. 39i

FIG. 39f

142 08 207

To Fig. 39d



143 8 207

To Fig. 39e

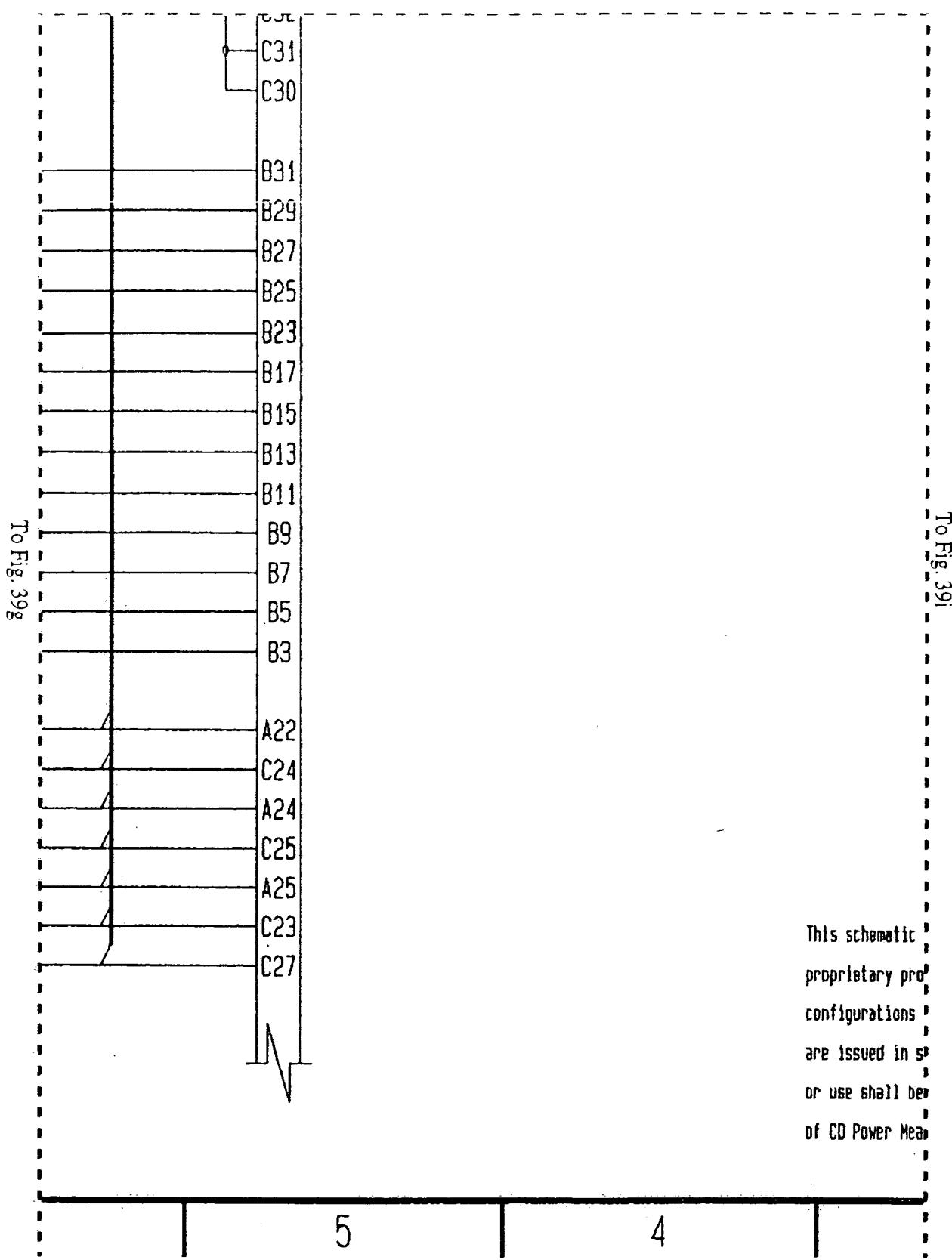


FIG. 39h

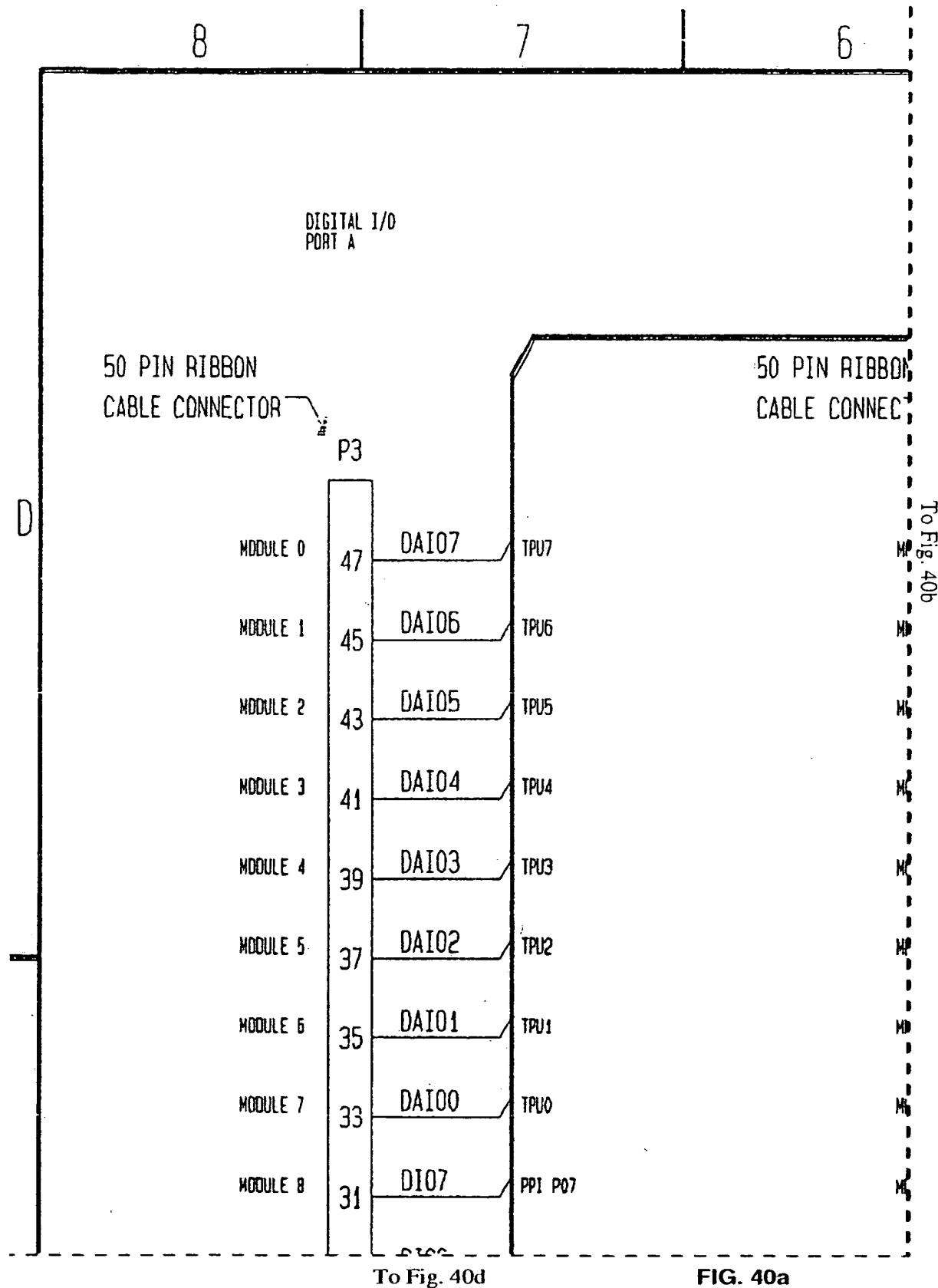
To Fig. 39f

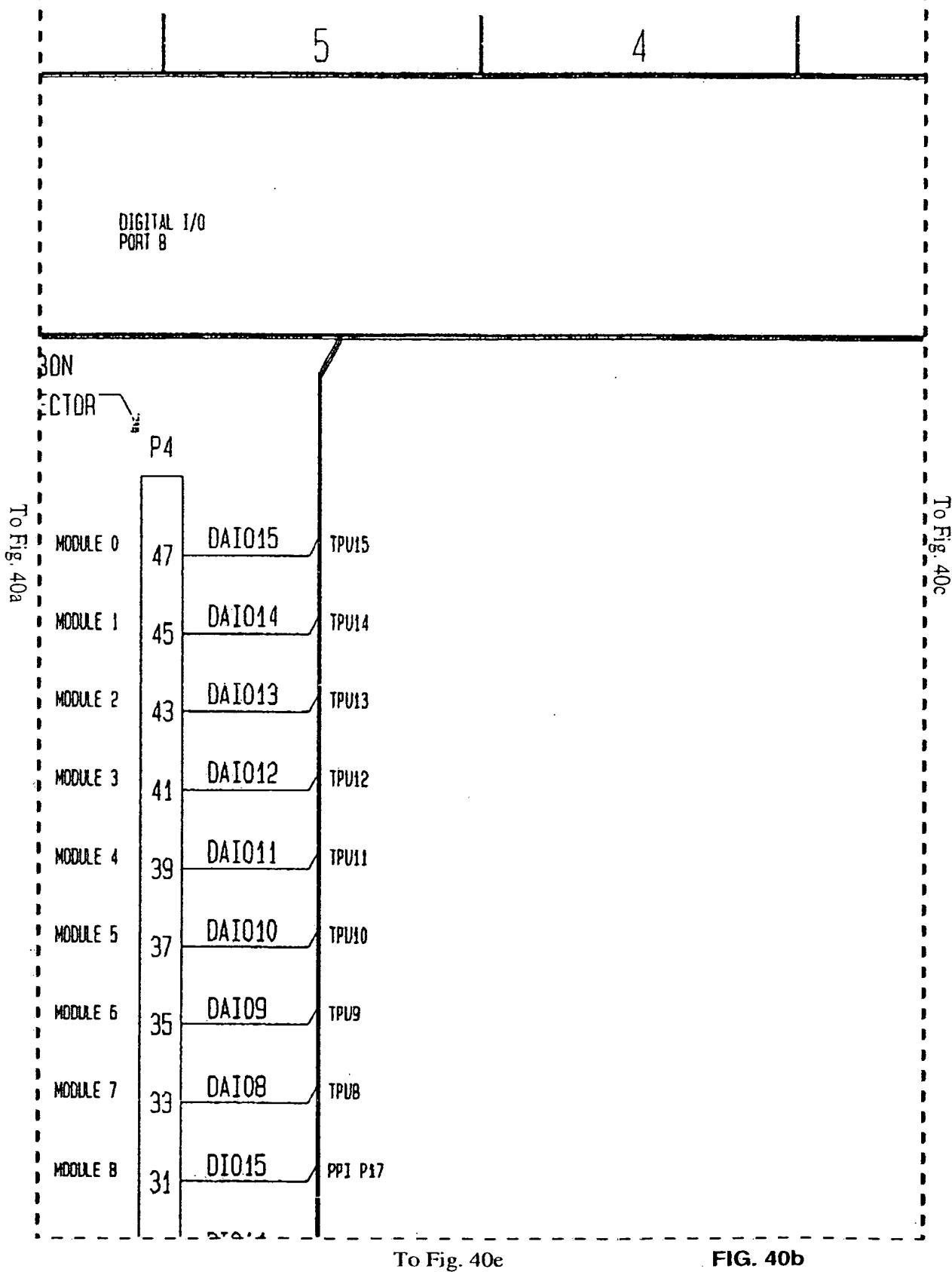
To Fig. 39h

A

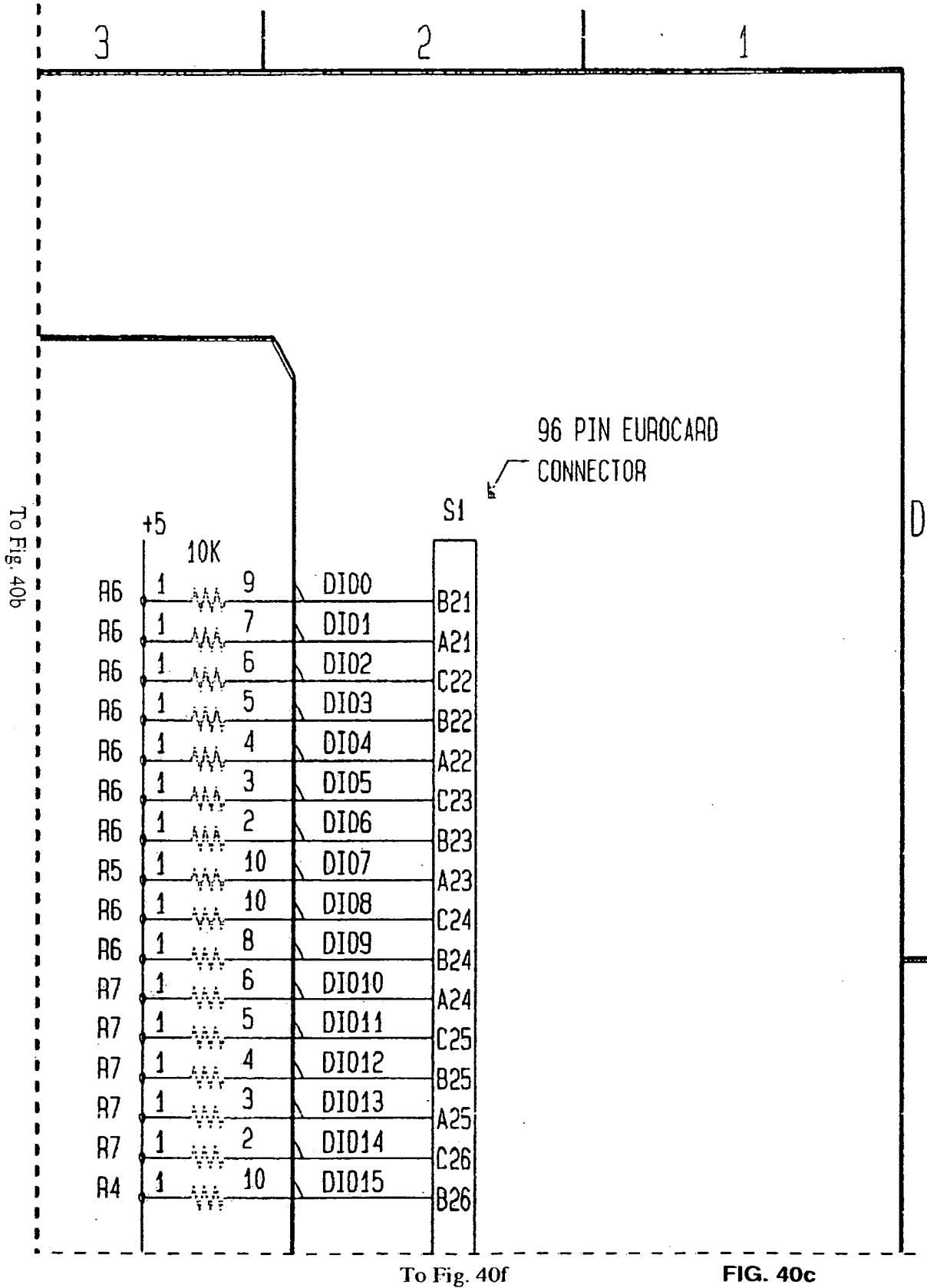
and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
strict confidence. No reproduction  
is made without prior written consent  
Measurement Ltd.

	POWER MEASUREMENT LTD.		
E			REV 1.2
DATE: OCT 20, 1993		SHEET 2 OF 7	

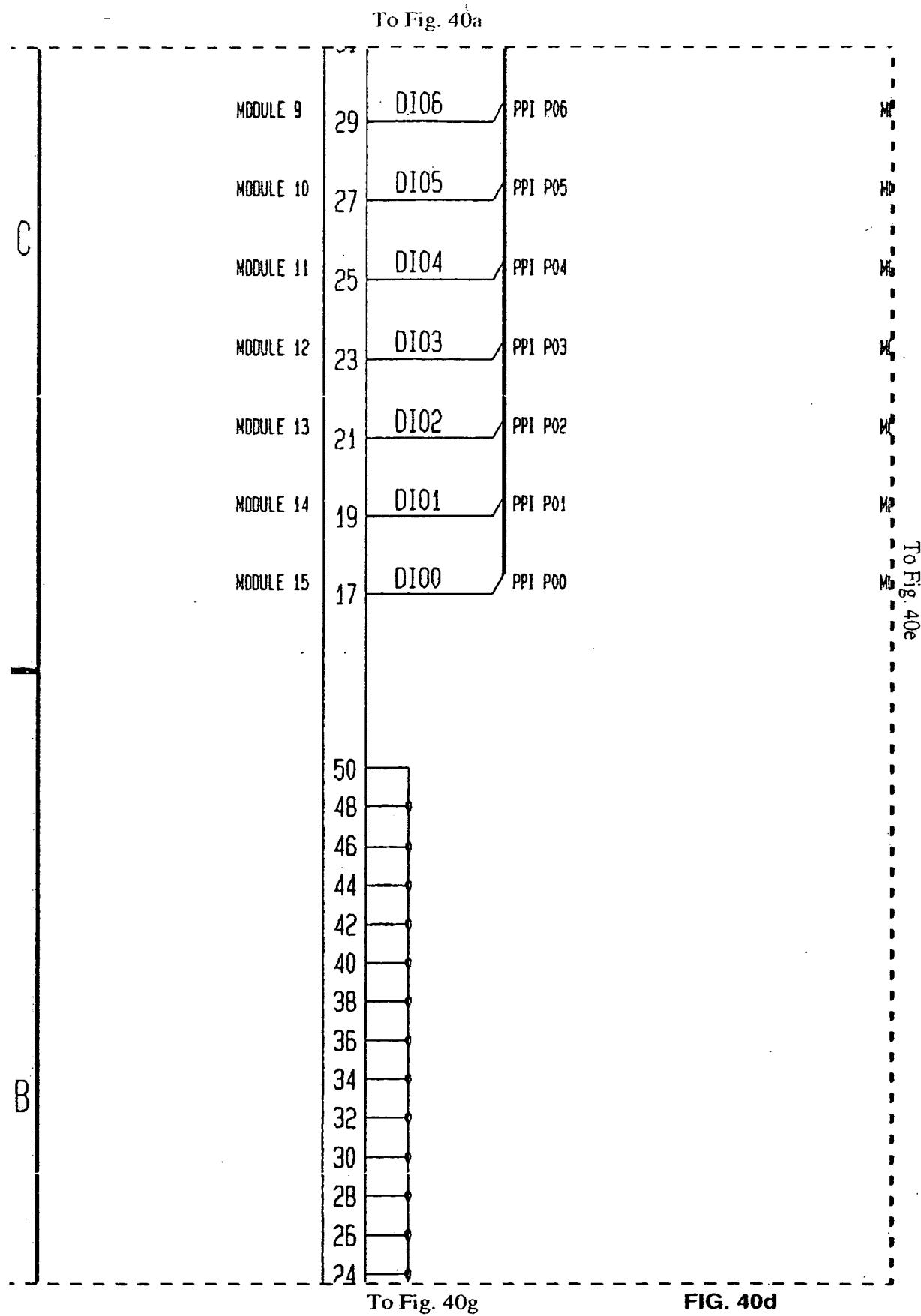




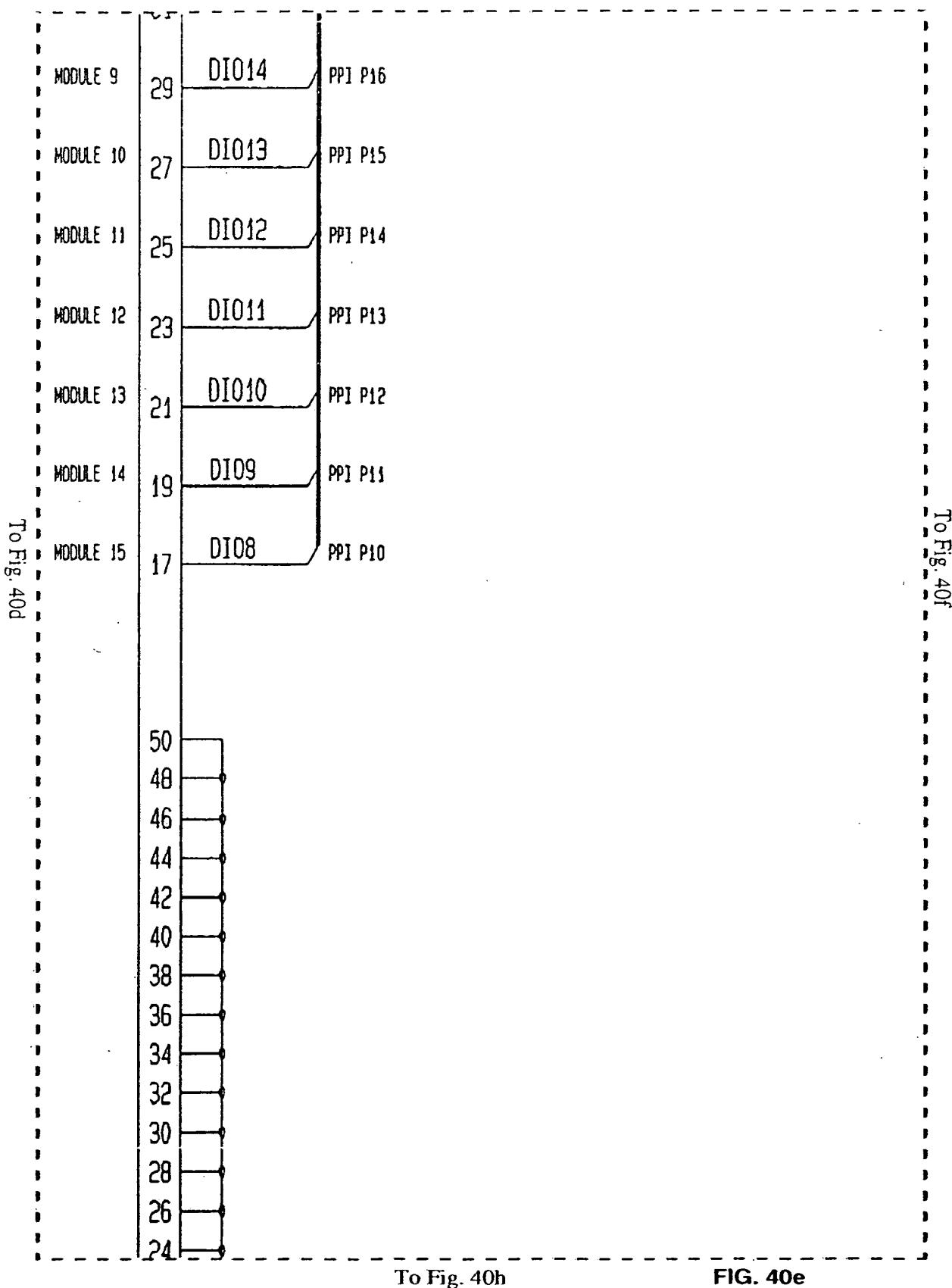
147 08 207



148 08 207

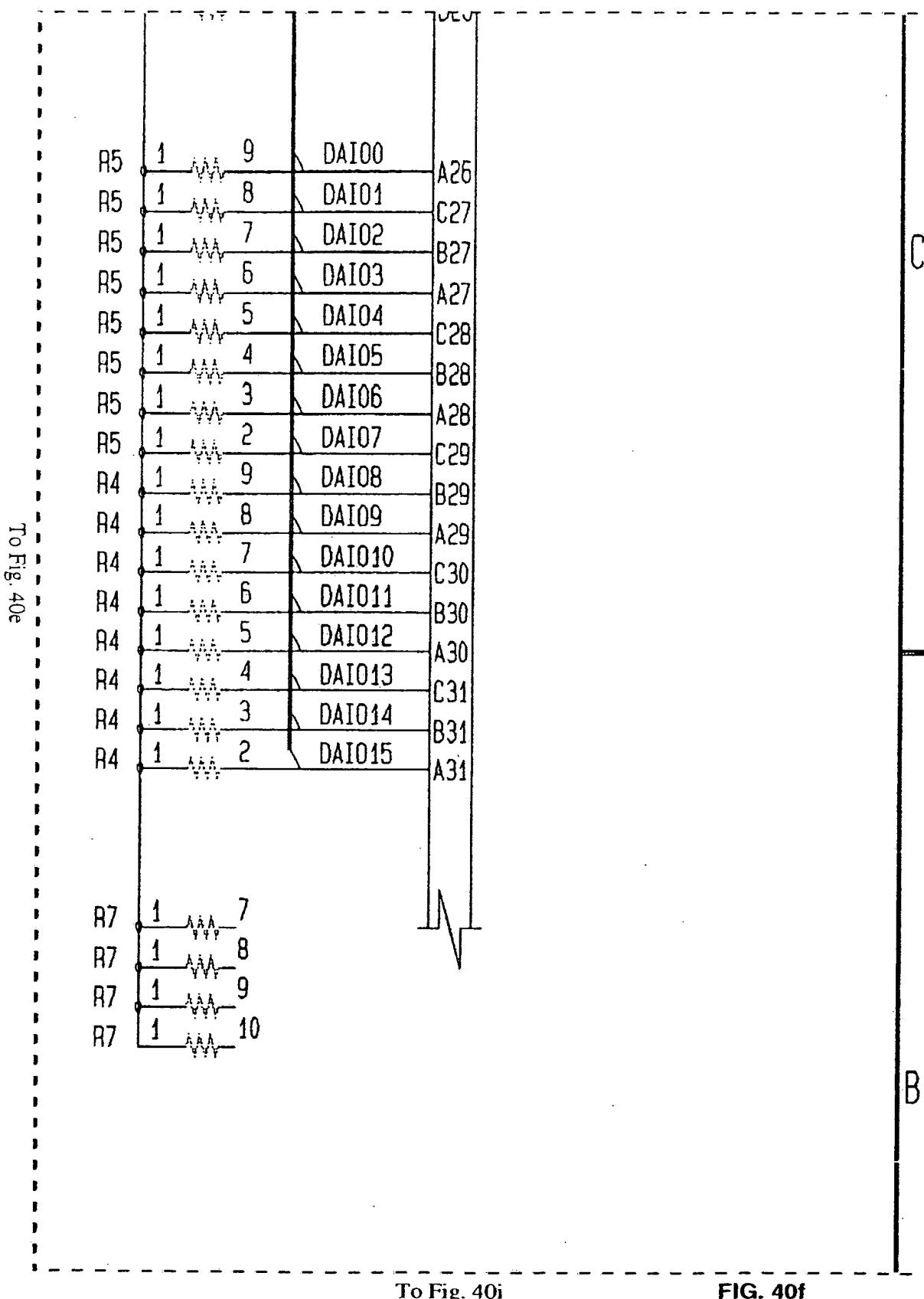


To Fig. 40b



150 87307

To Fig. 40c



151 8 707

To Fig. 40d

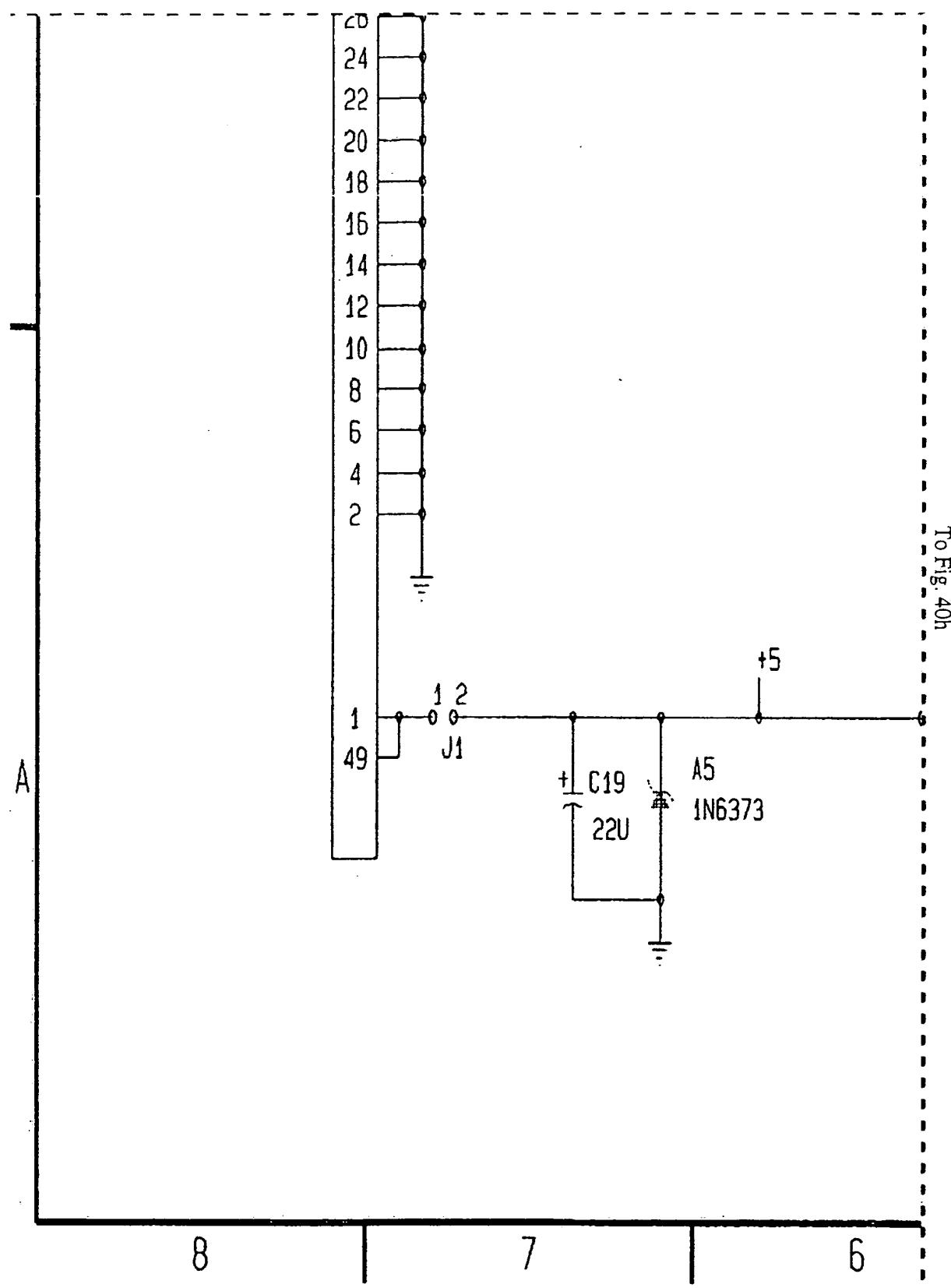


FIG. 40g

To Fig. 40e

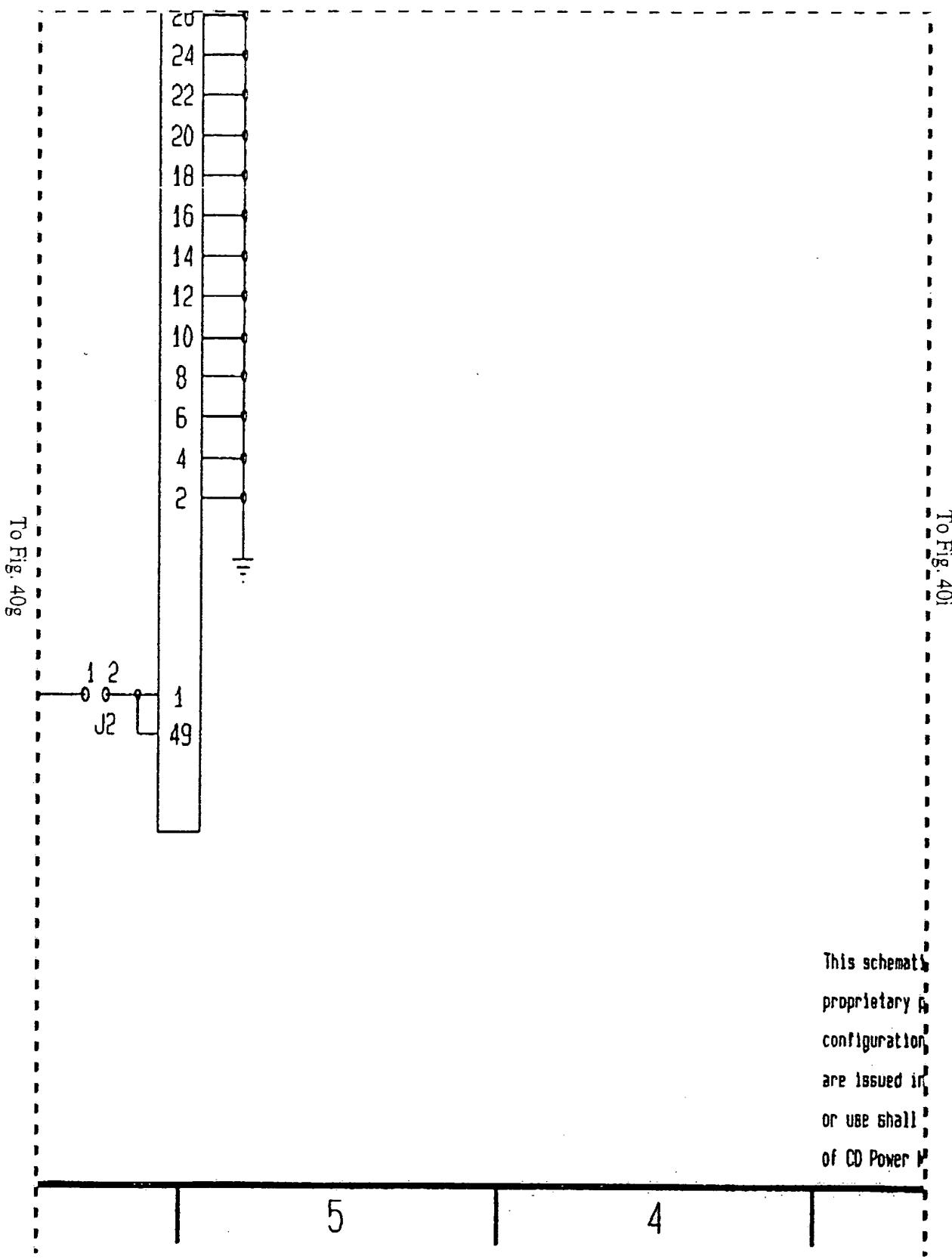


FIG. 40h

To Fig. 40f

To Fig. 40h

A

ic and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
n strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.

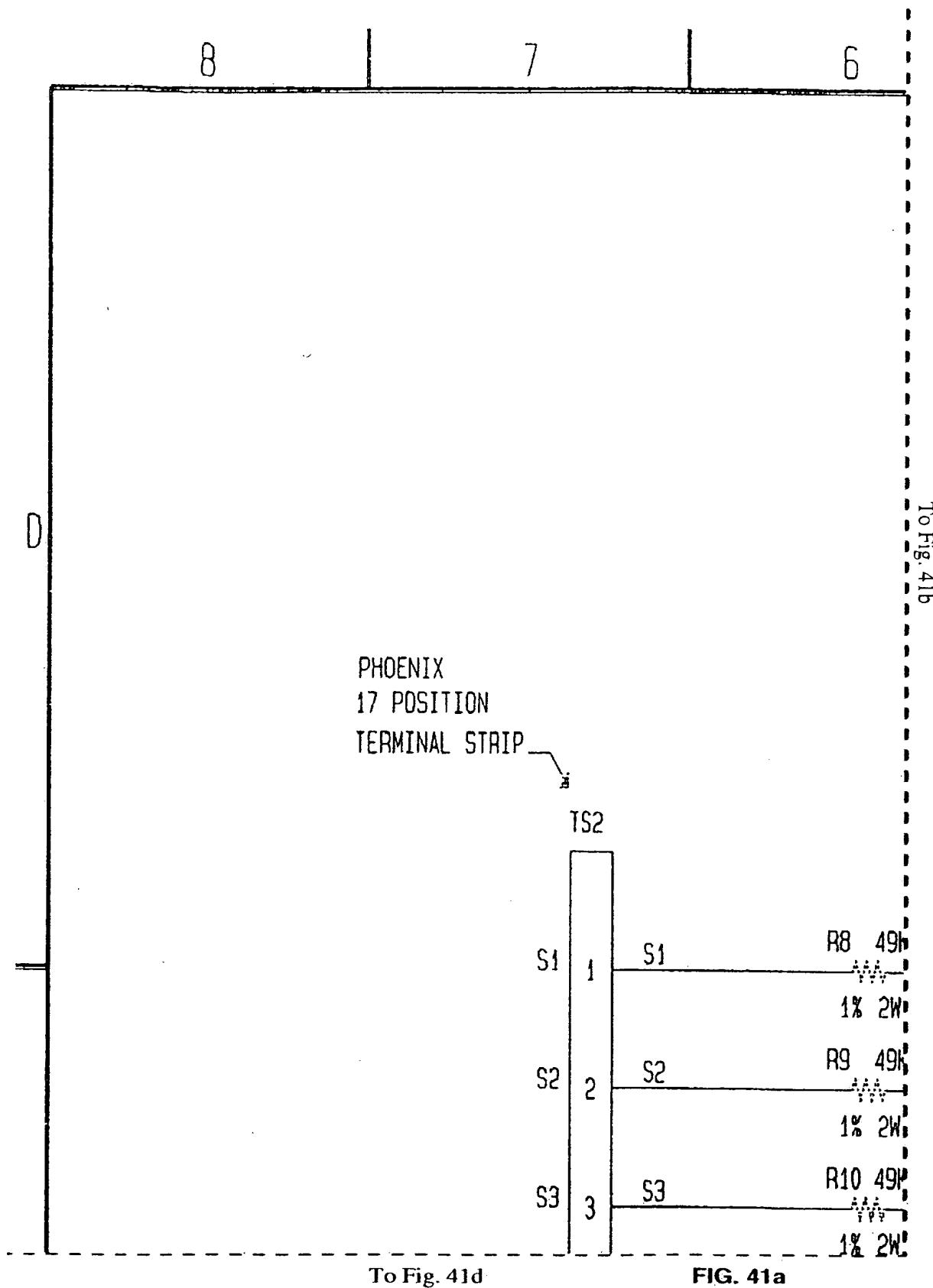
		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: OCT 20, 1993		SHEET 3 OF 7	

Patent Application for: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

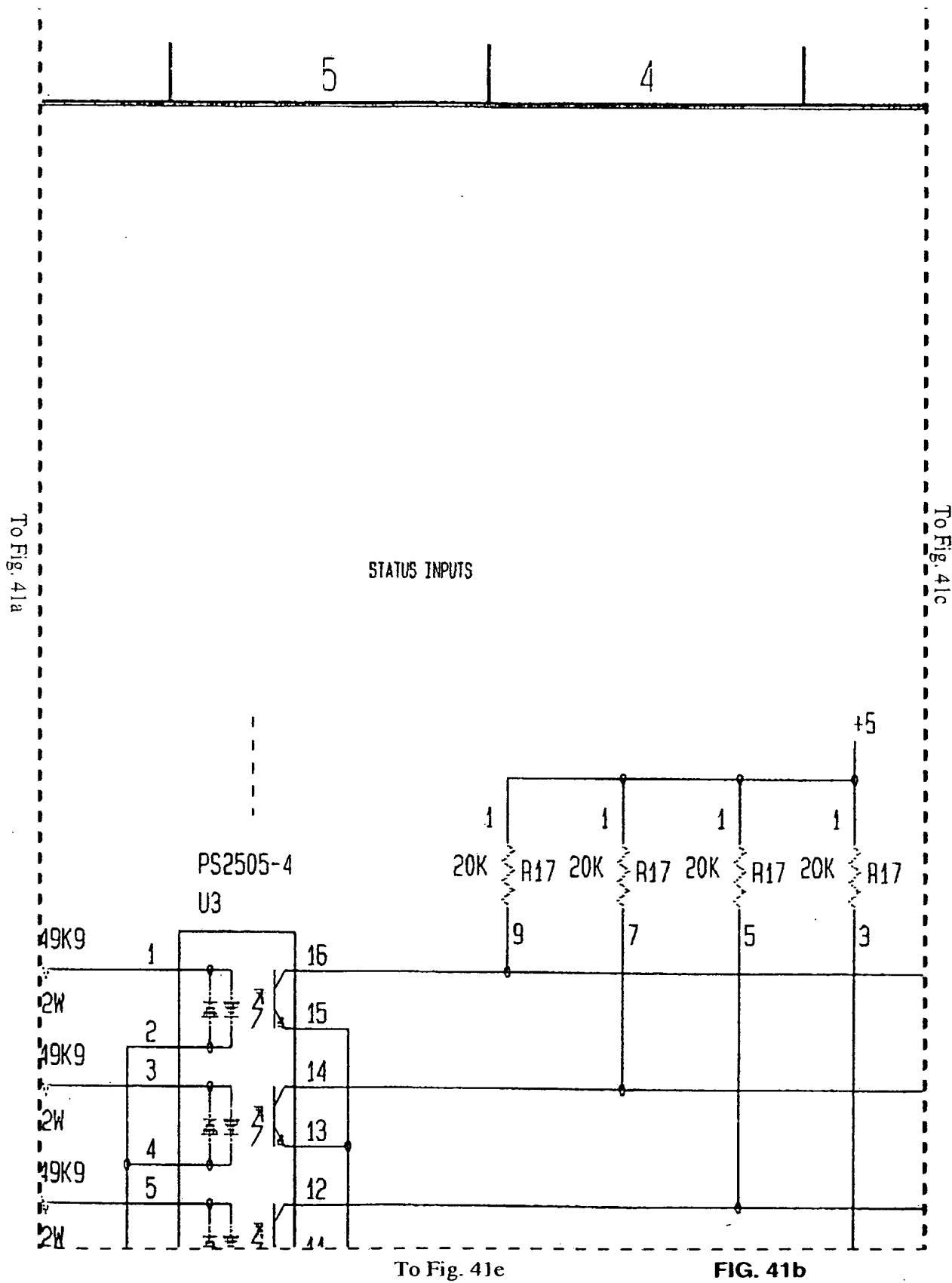
Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

154 Q 207



199 Q 207



Patent Application for: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

156 8207

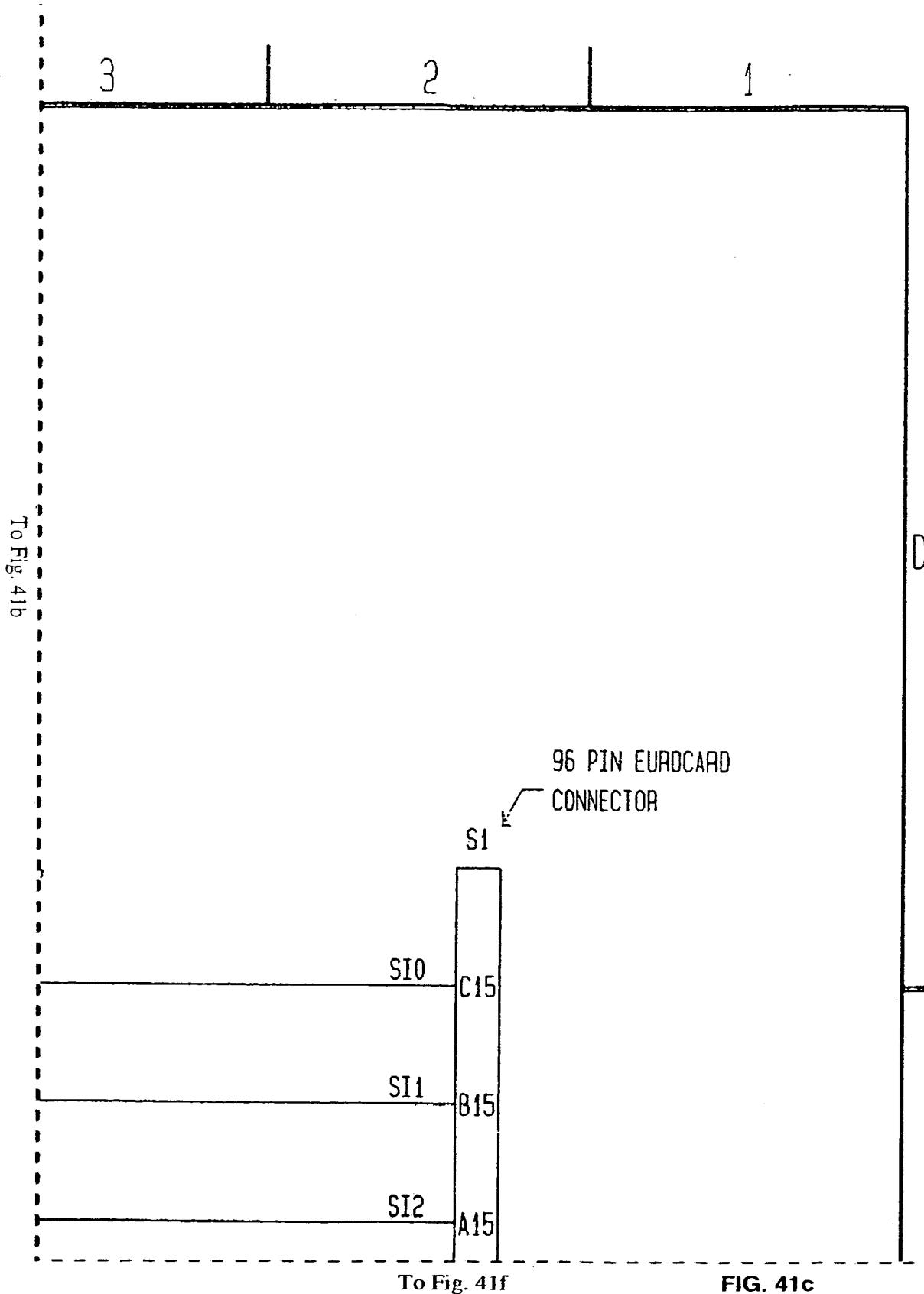
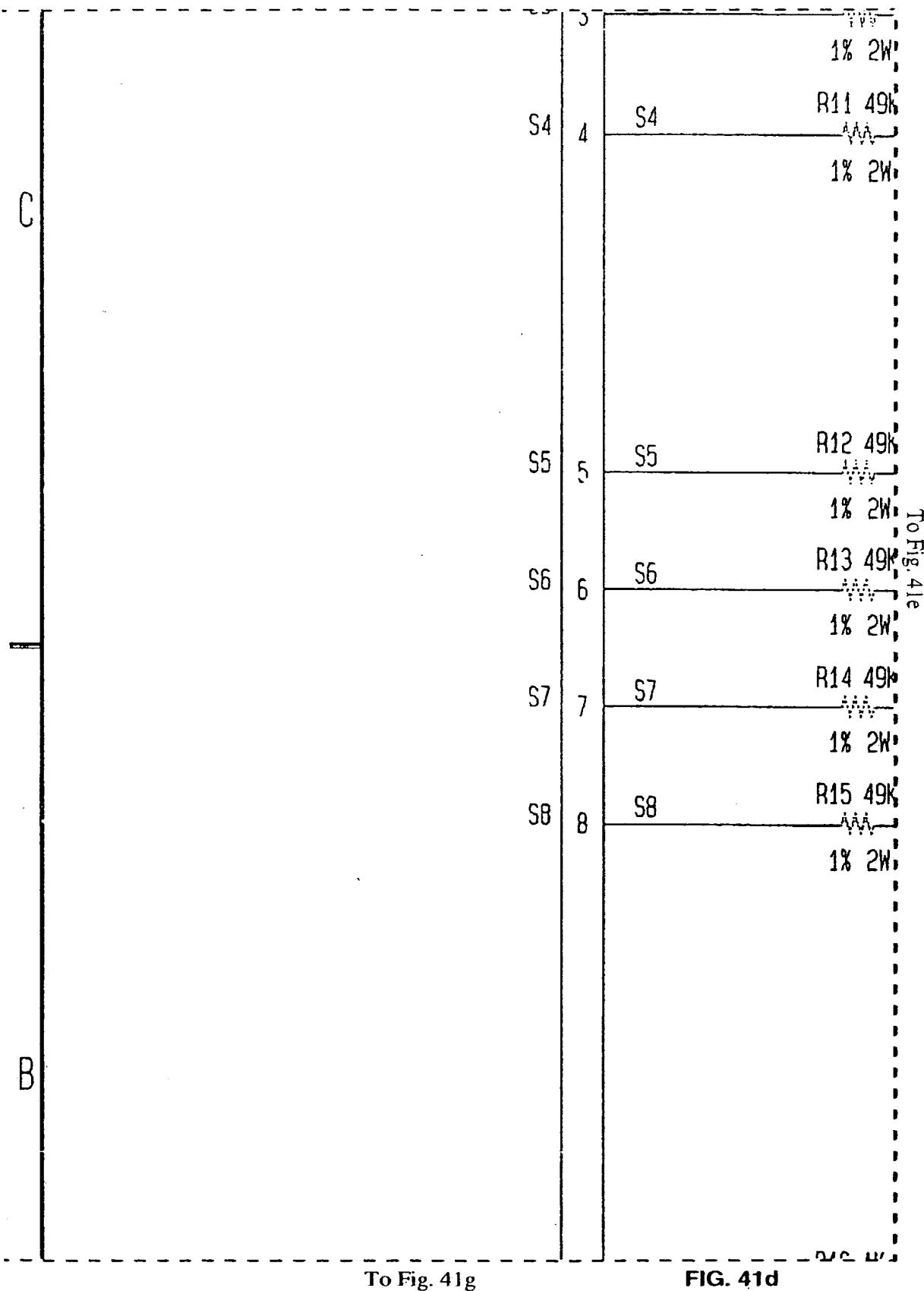


FIG. 41c

157 08 307

To Fig. 41a

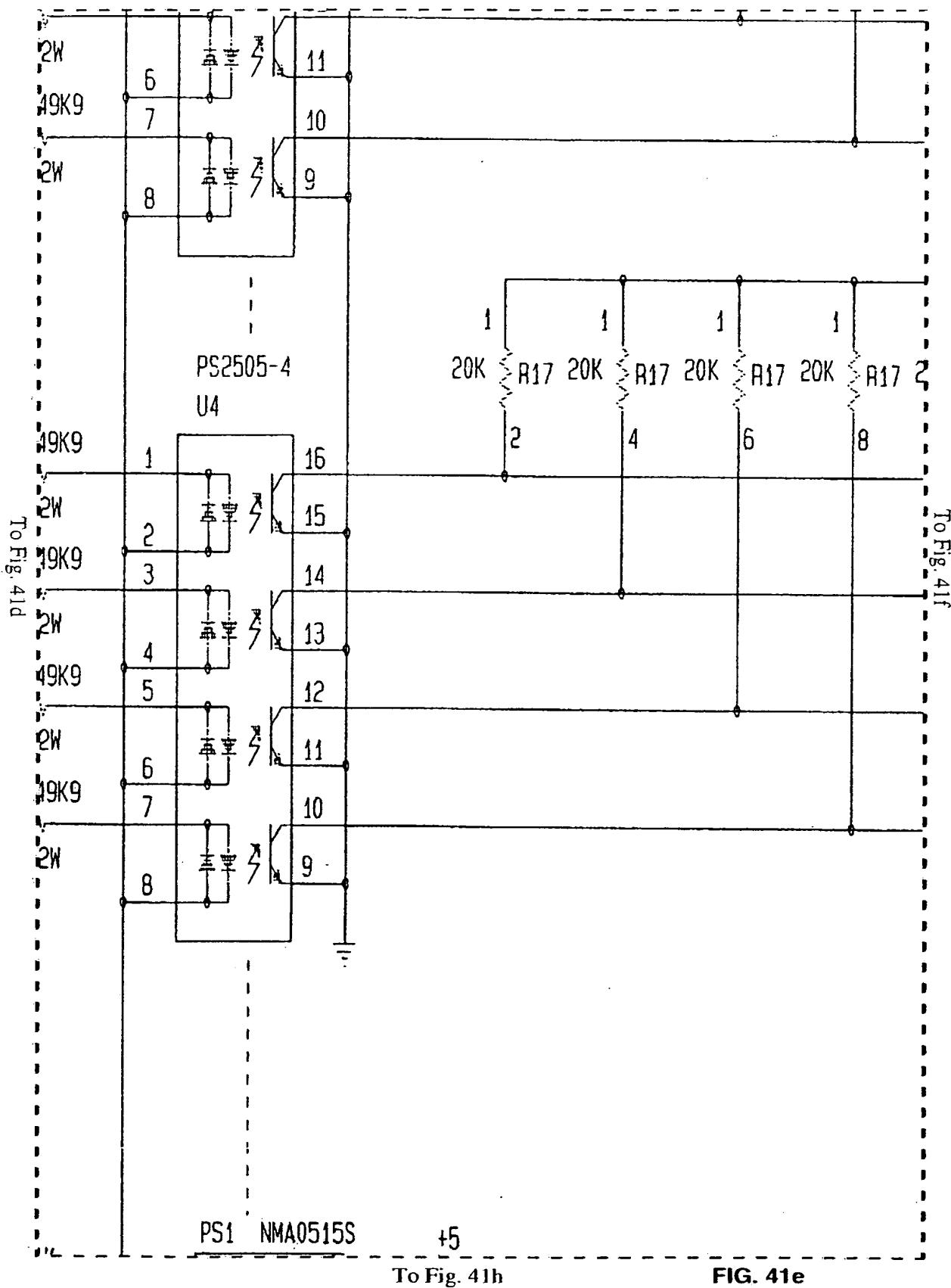


To Fig. 41g

FIG. 41d

158 8 207

To Fig. 41b



To Fig. 41b

FIG. 41e

159 8 307

To Fig. 41c

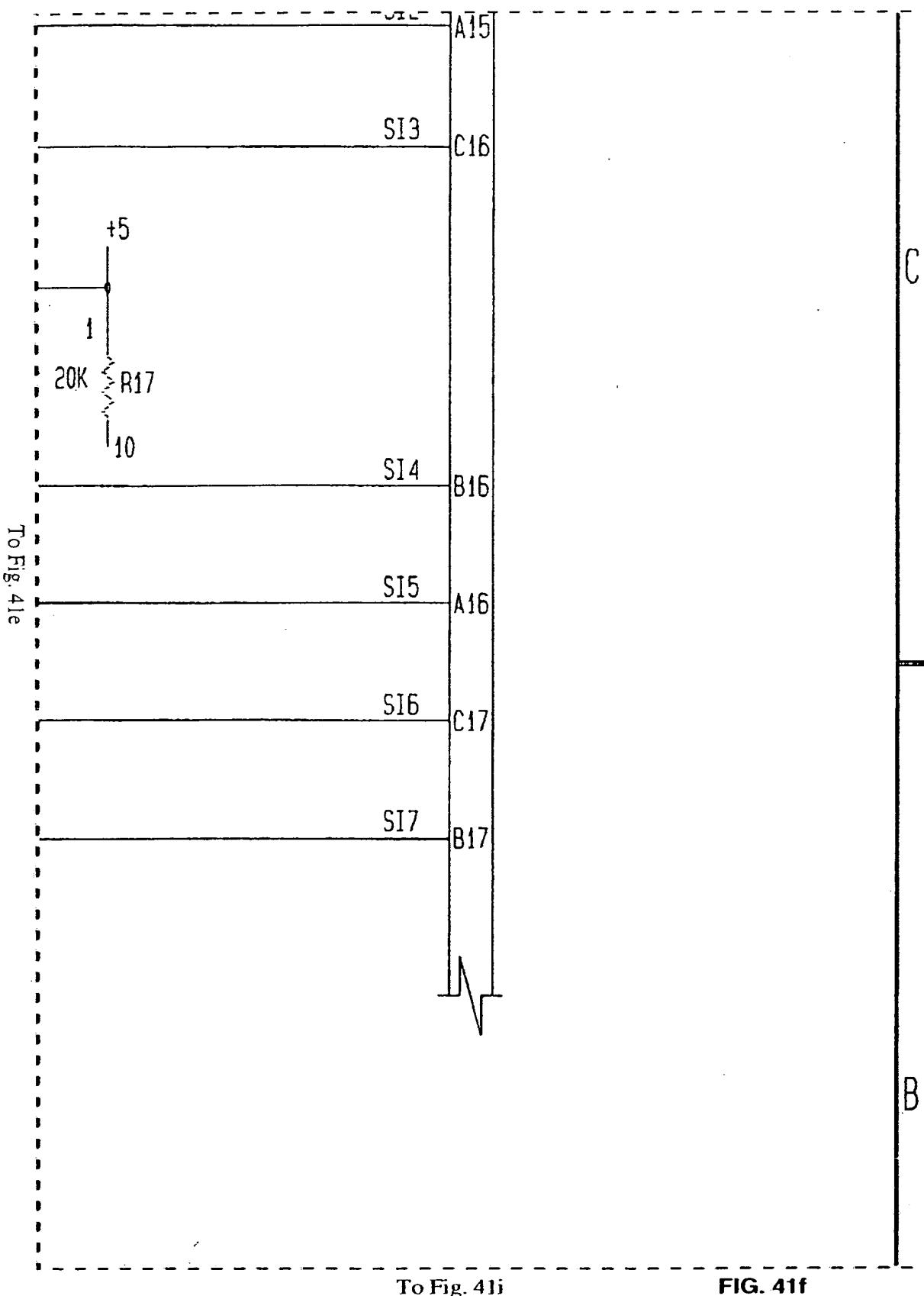


FIG. 41f

160 08 207

To Fig. 41d

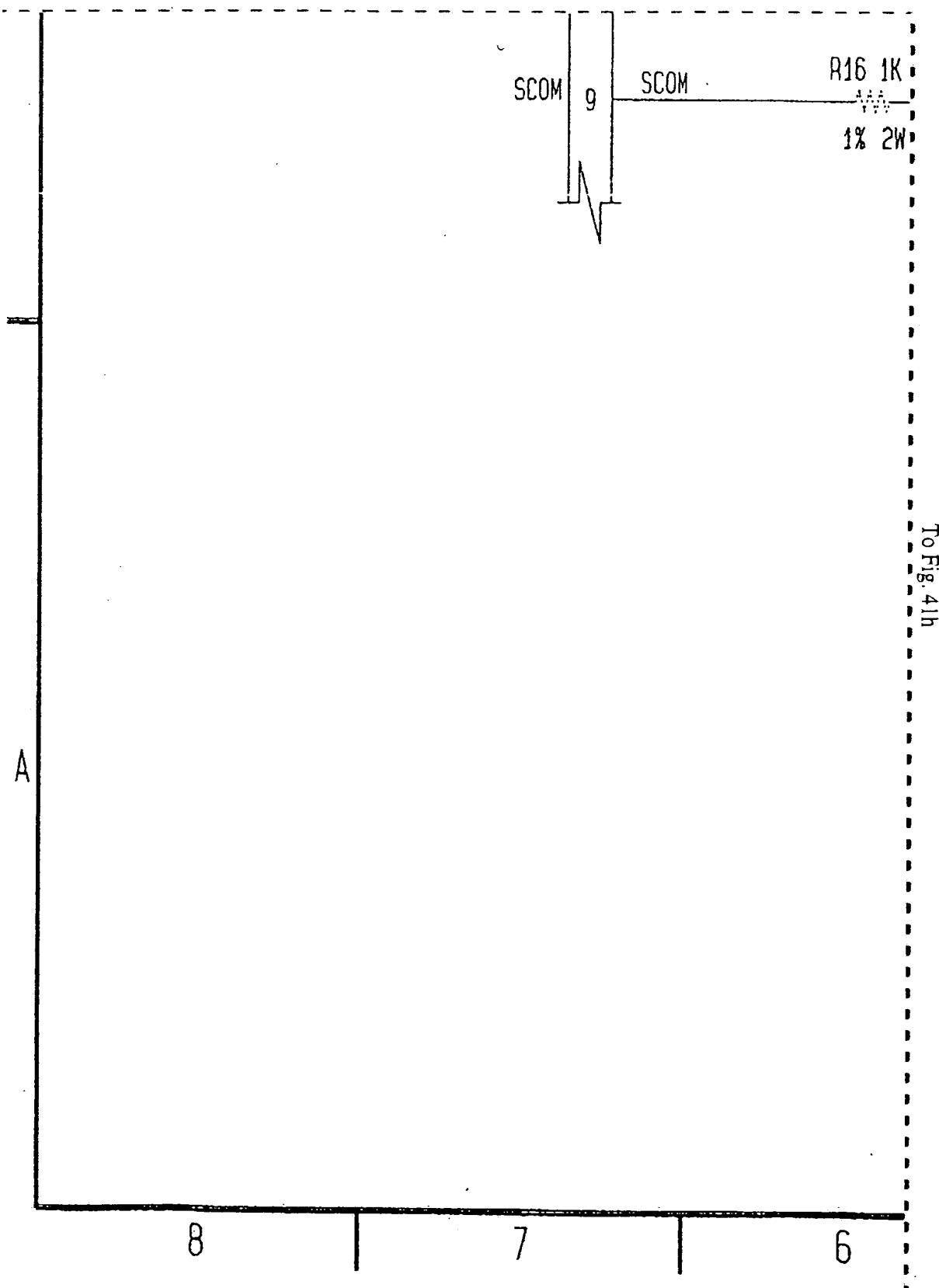


FIG. 41g

101 06207

To Fig. 41e

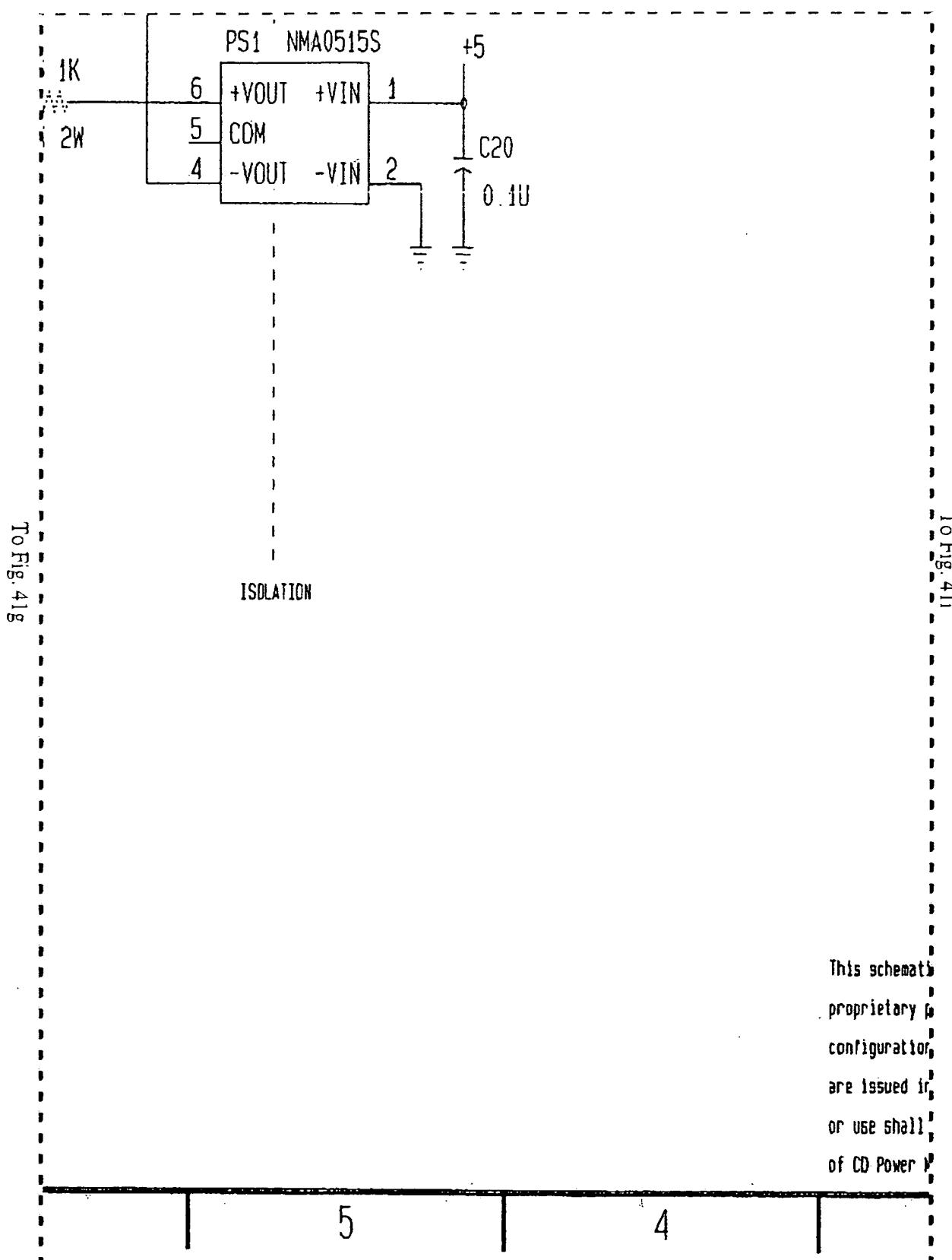


FIG. 41h

162 88 007

To Fig. 41f

To Fig. 41h

A

ic and/or specifications are the  
property, trade secrets, or patented  
of CD-Power Measurement Ltd. and  
n strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.

		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: AUG 13, 1993		SHEET 4 OF 7	

3

2

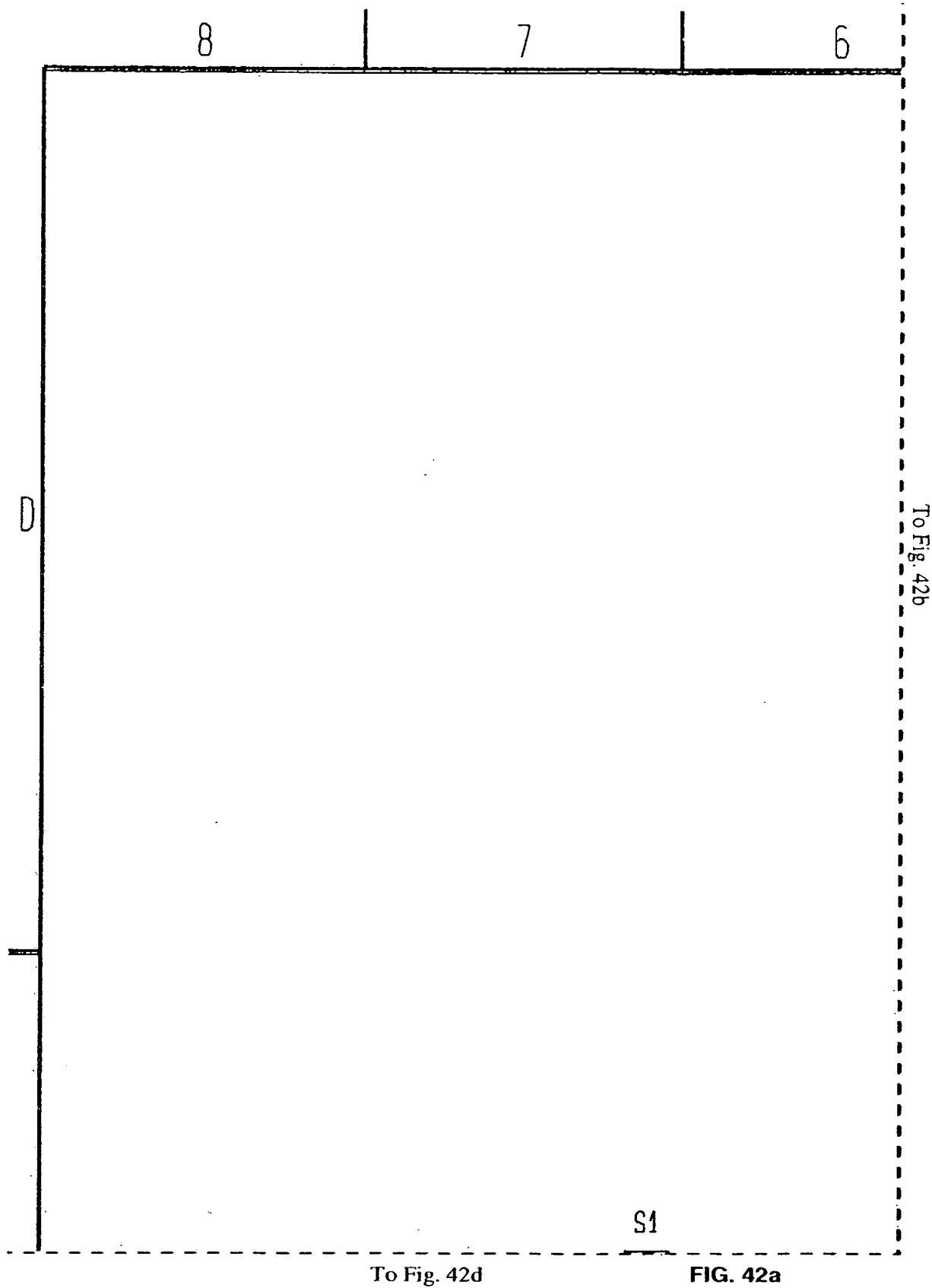
1

FIG. 41i

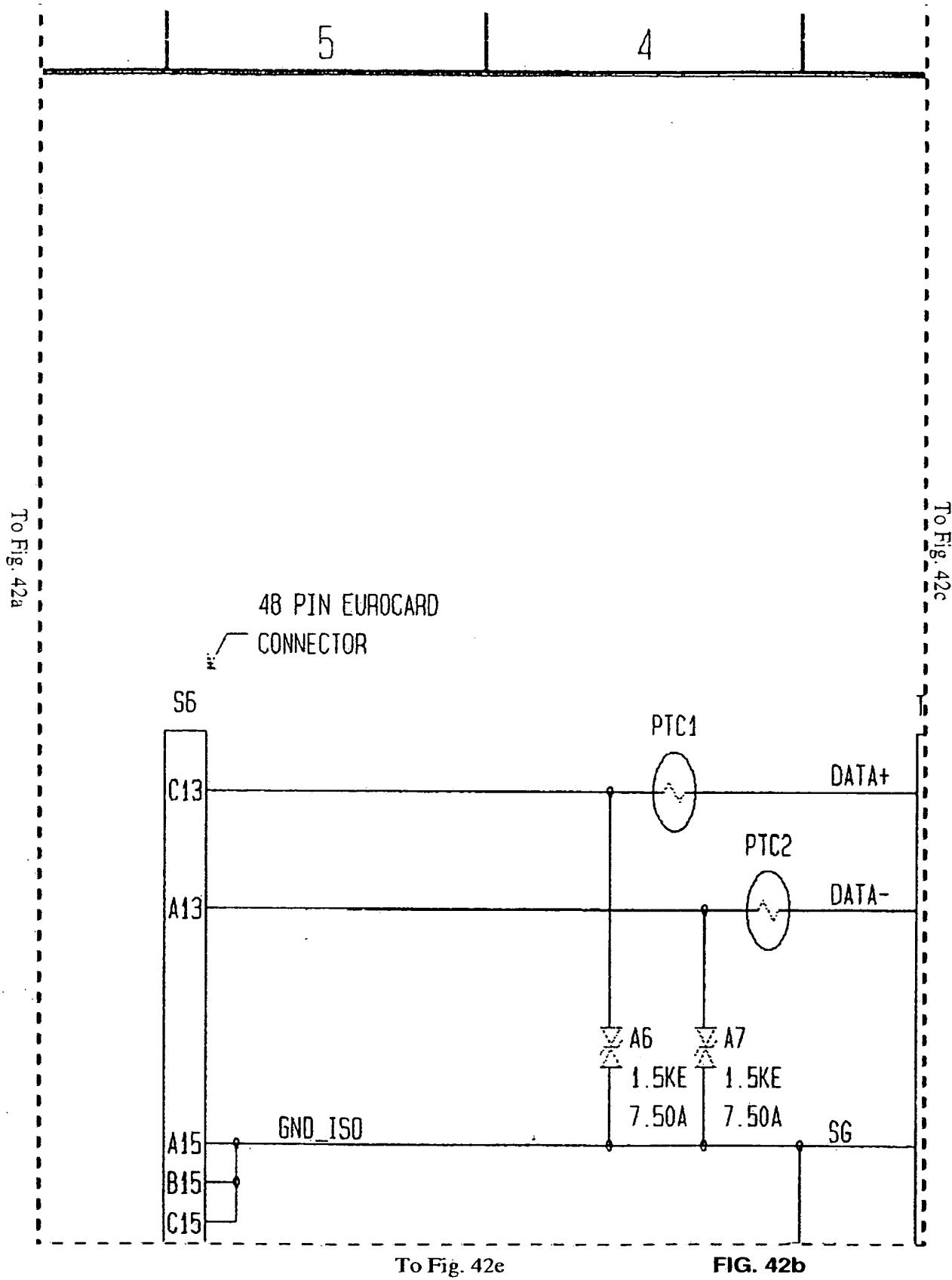
Patent Application for: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND  
MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart  
Attorney Docket No. 6270/76, Serial No. 10/068,431

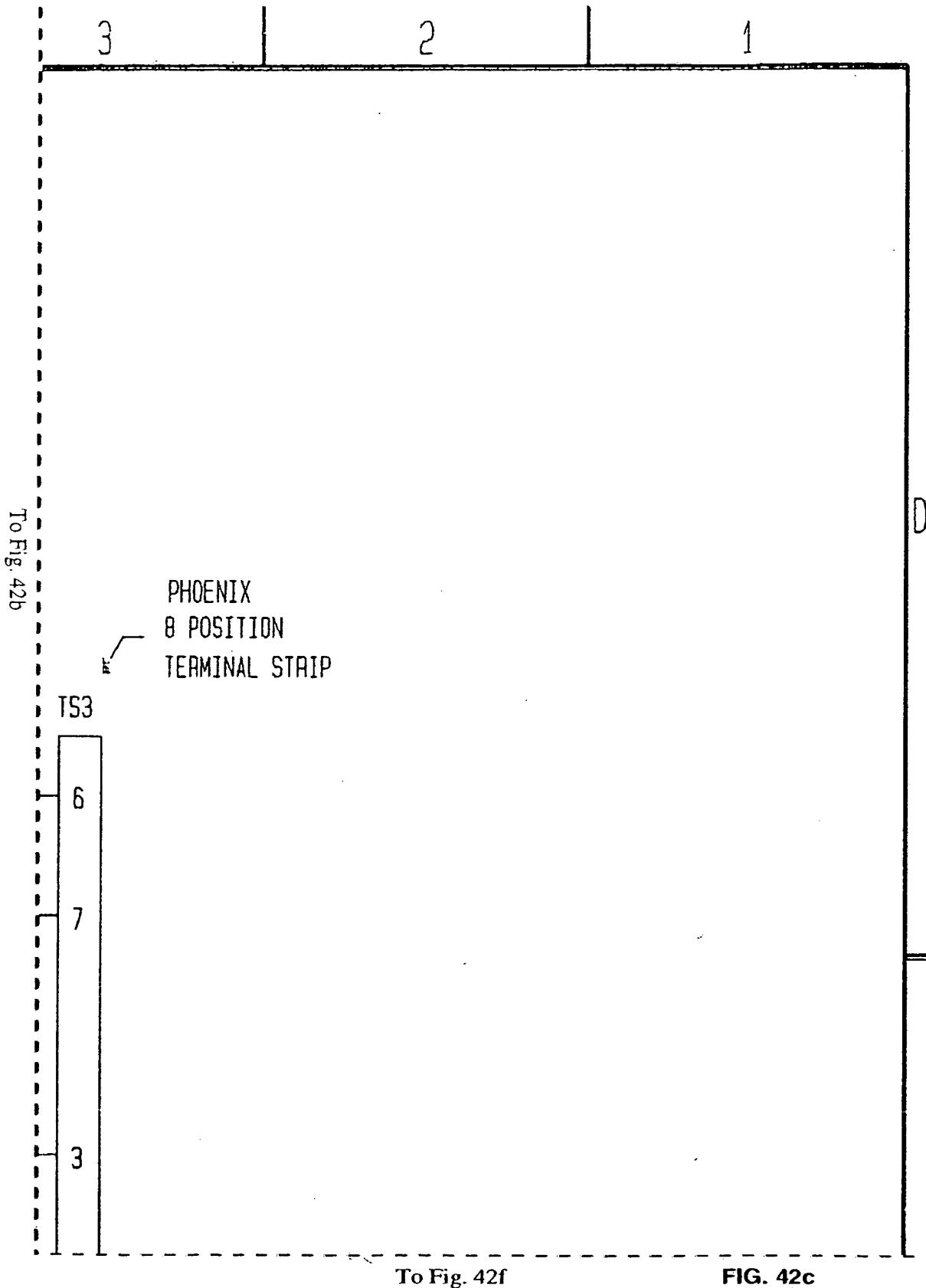
163 8 807



164 07/207

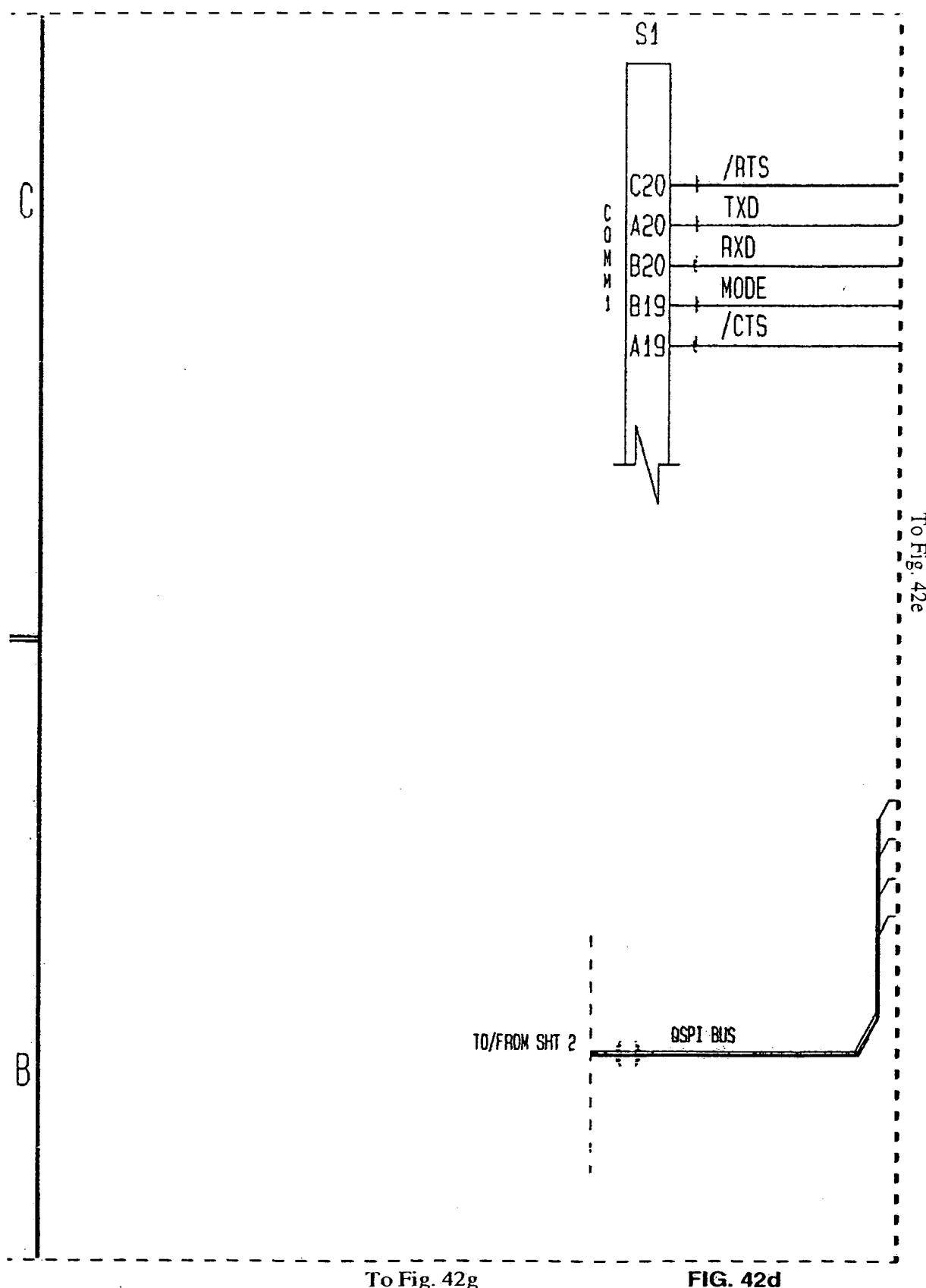


165 A 207

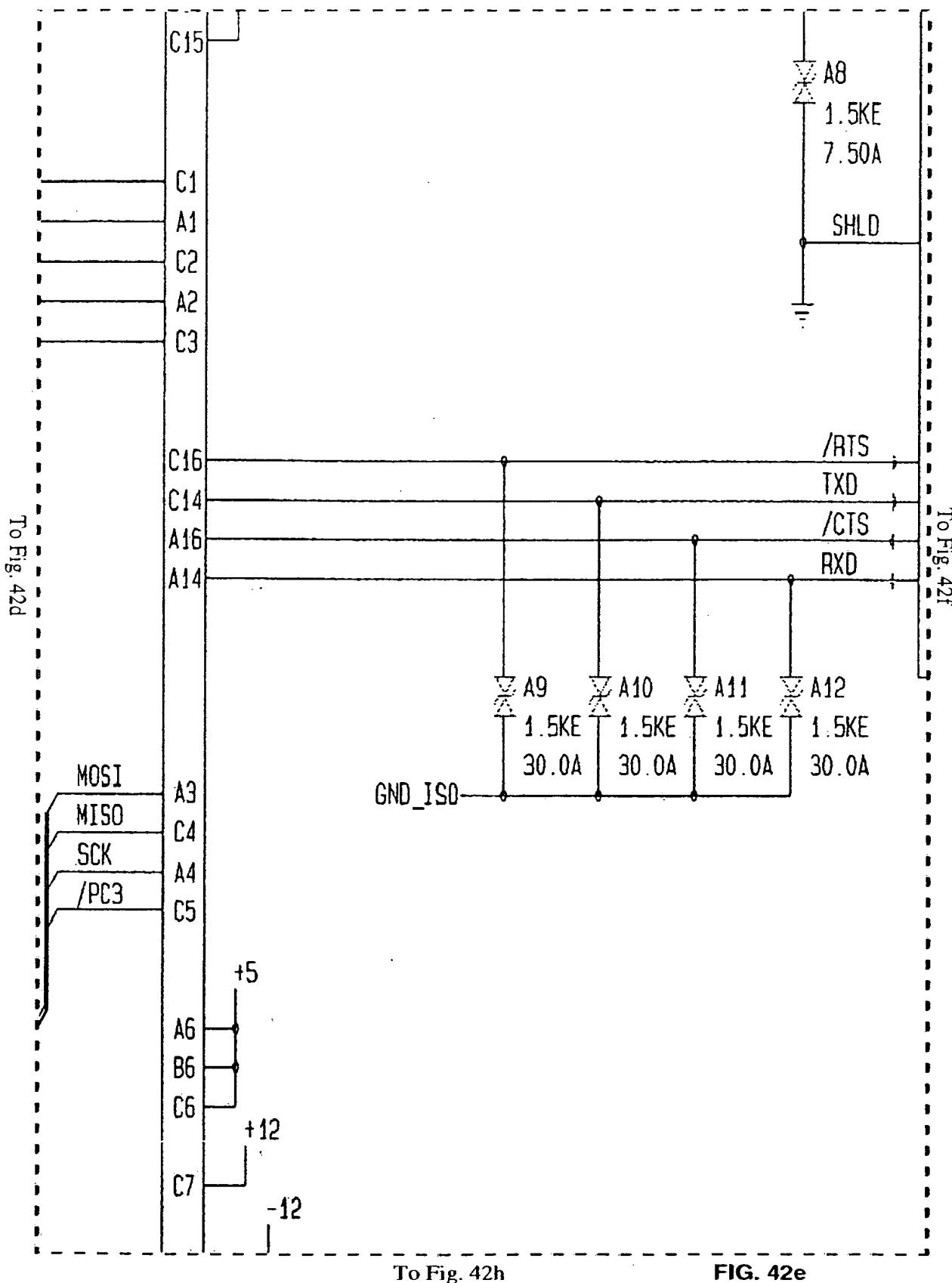


166 06 07

To Fig. 42a

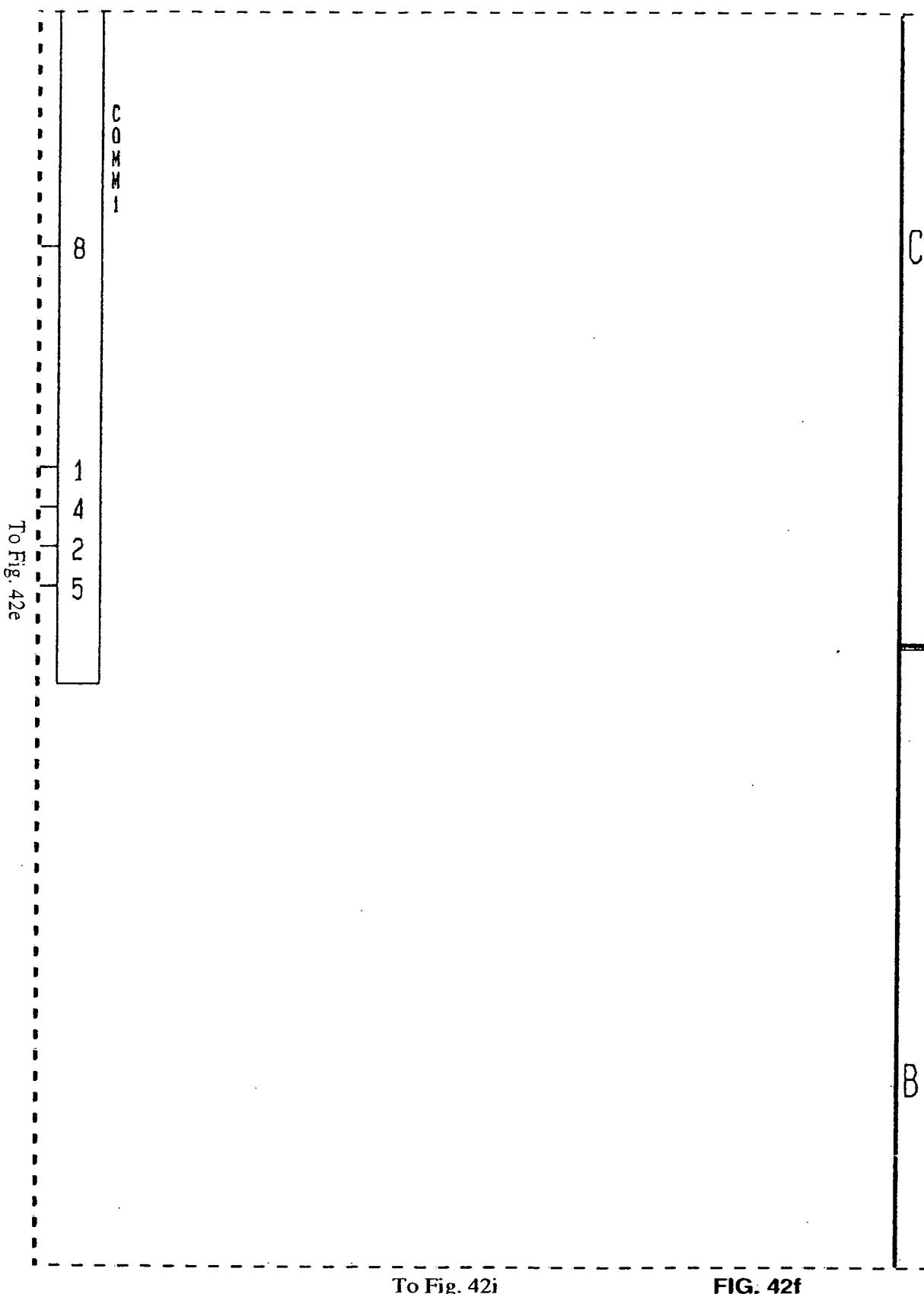


To Fig. 42b

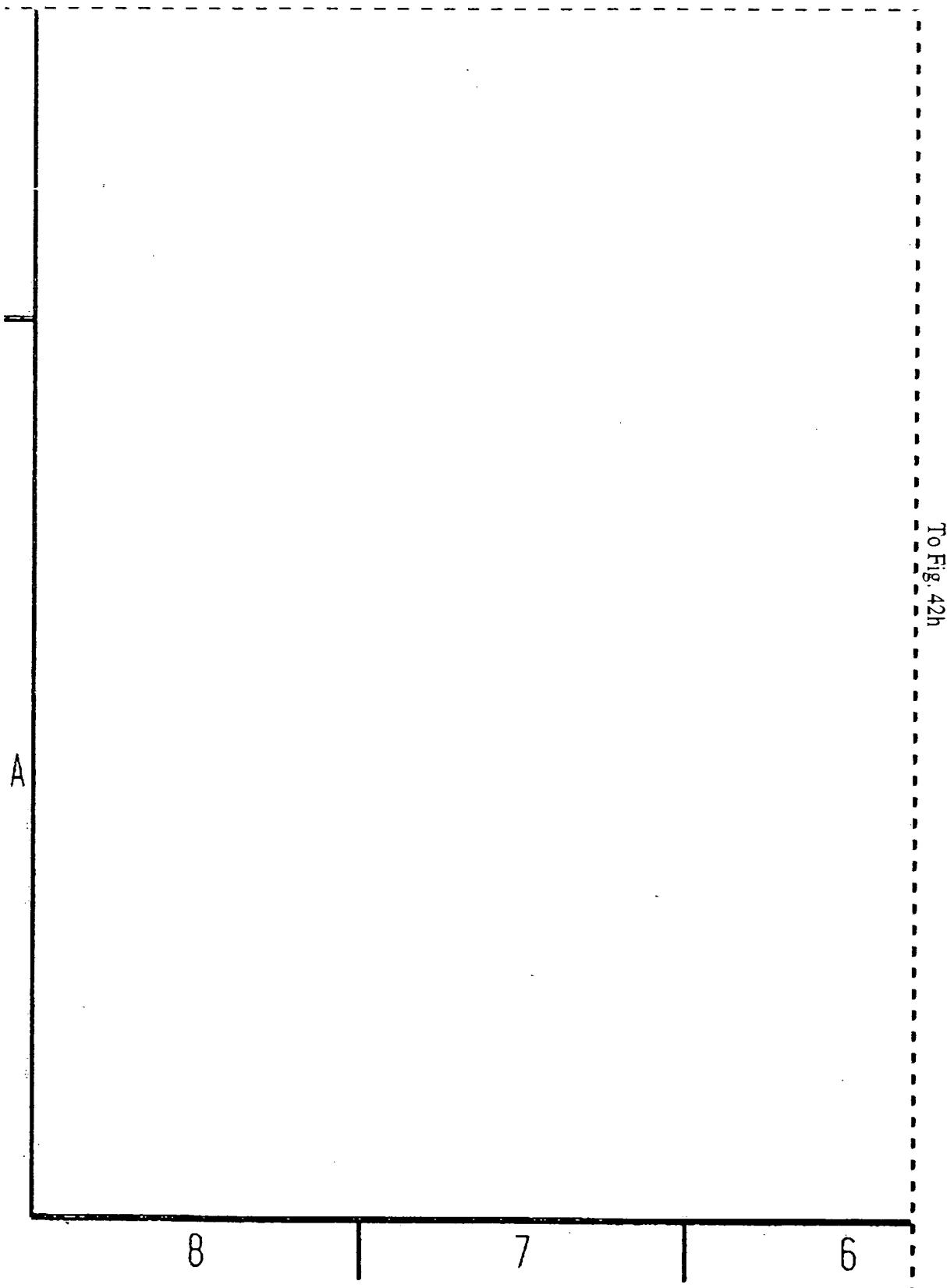


168 6 307

To Fig. 42c



To Fig. 42d



8

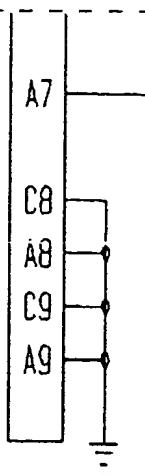
7

6

FIG. 42g

170 8 207

To Fig. 42e



To Fig. 42g

To Fig. 42i

This schematic  
proprietary  
configuration  
are issued in  
or use shall  
of CD Power

5

4

FIG. 42h

171 68 207

To Fig. 42f

To Fig. 42h

A

lic and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.

		POWER MEASUREMENT LTD.	
E		REV 1.2	
DATE: AUG 13, 1993		SHEET 5 OF 7	

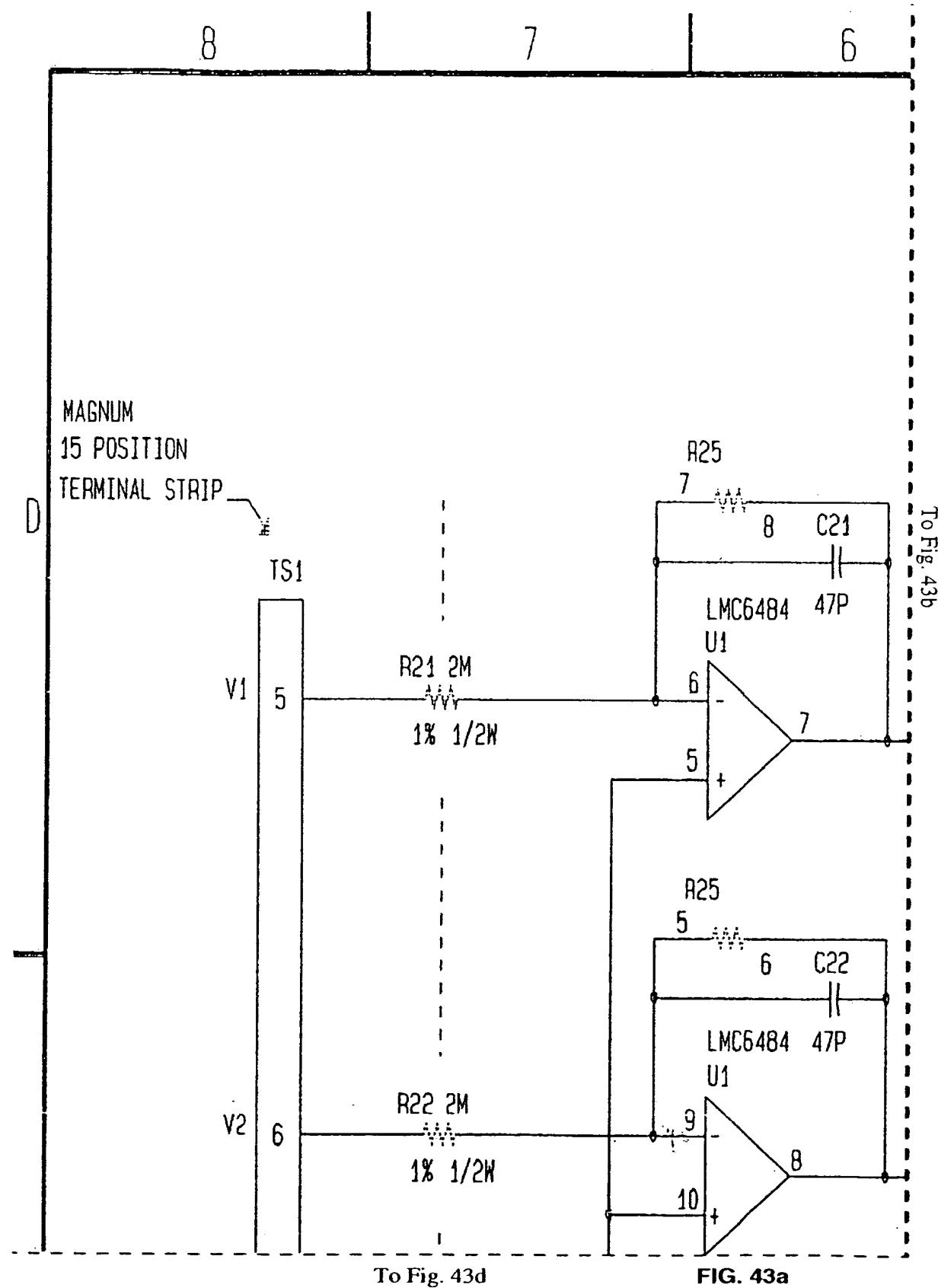
3

2

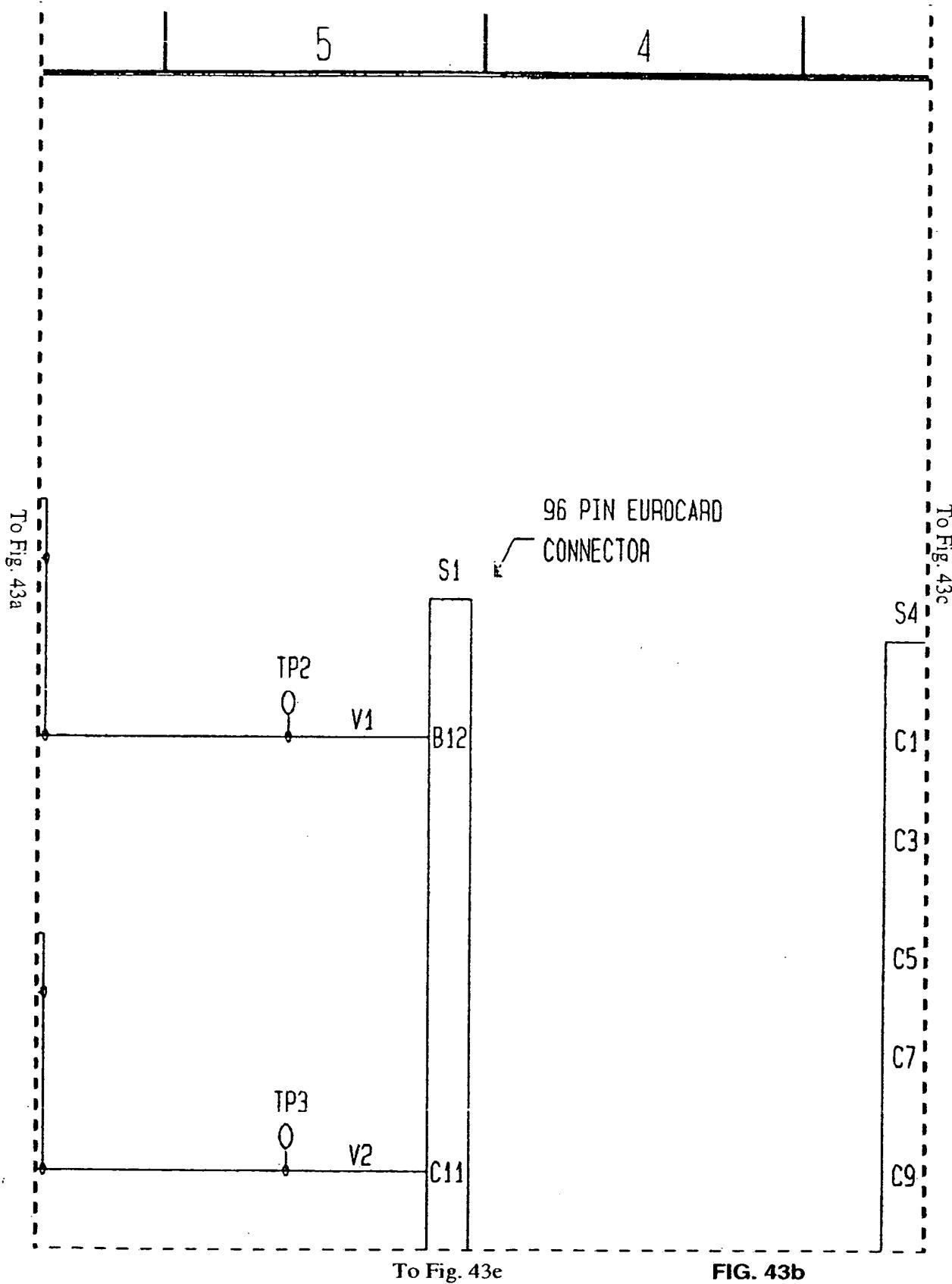
1

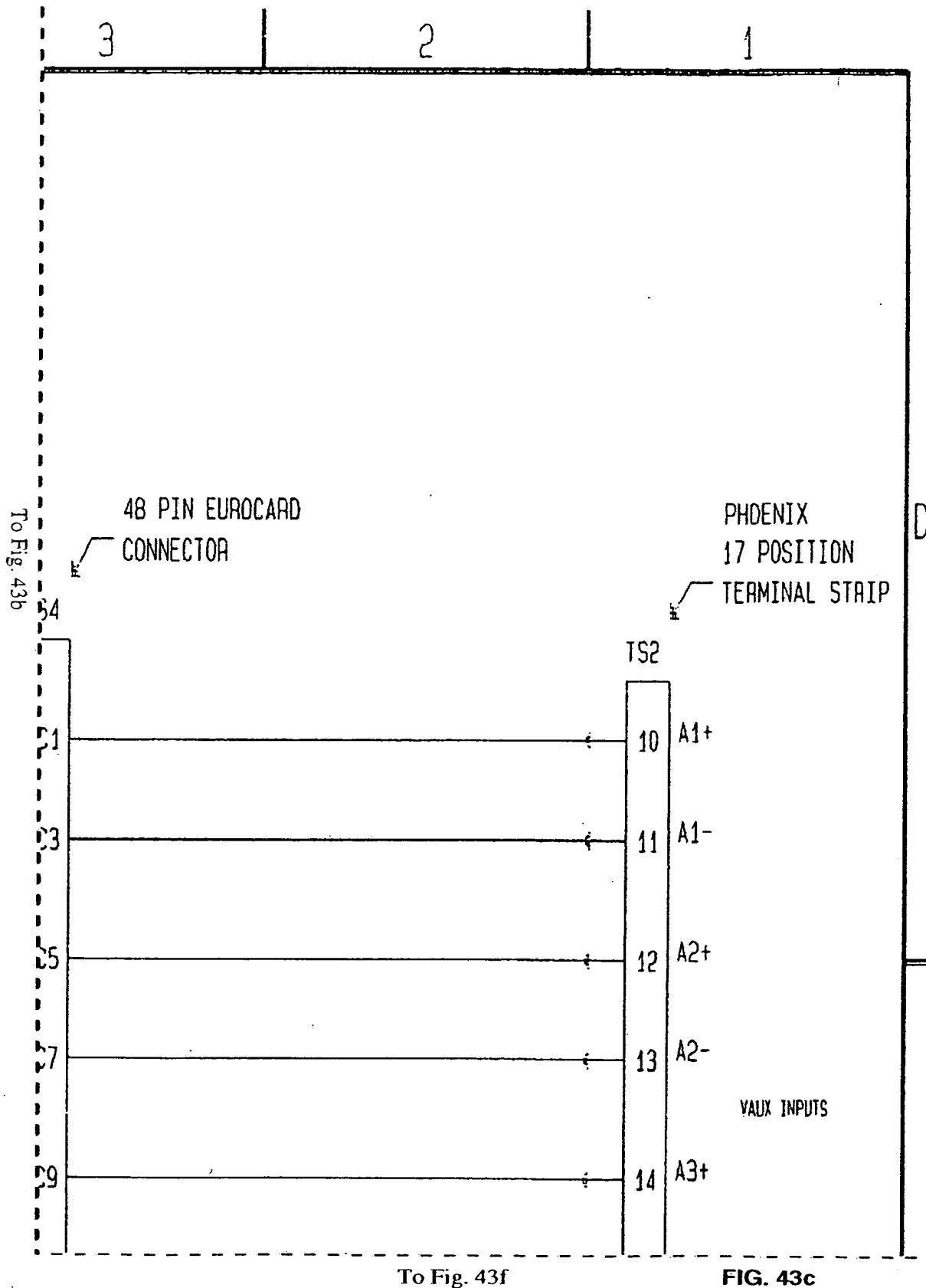
FIG. 42i

172 9 807



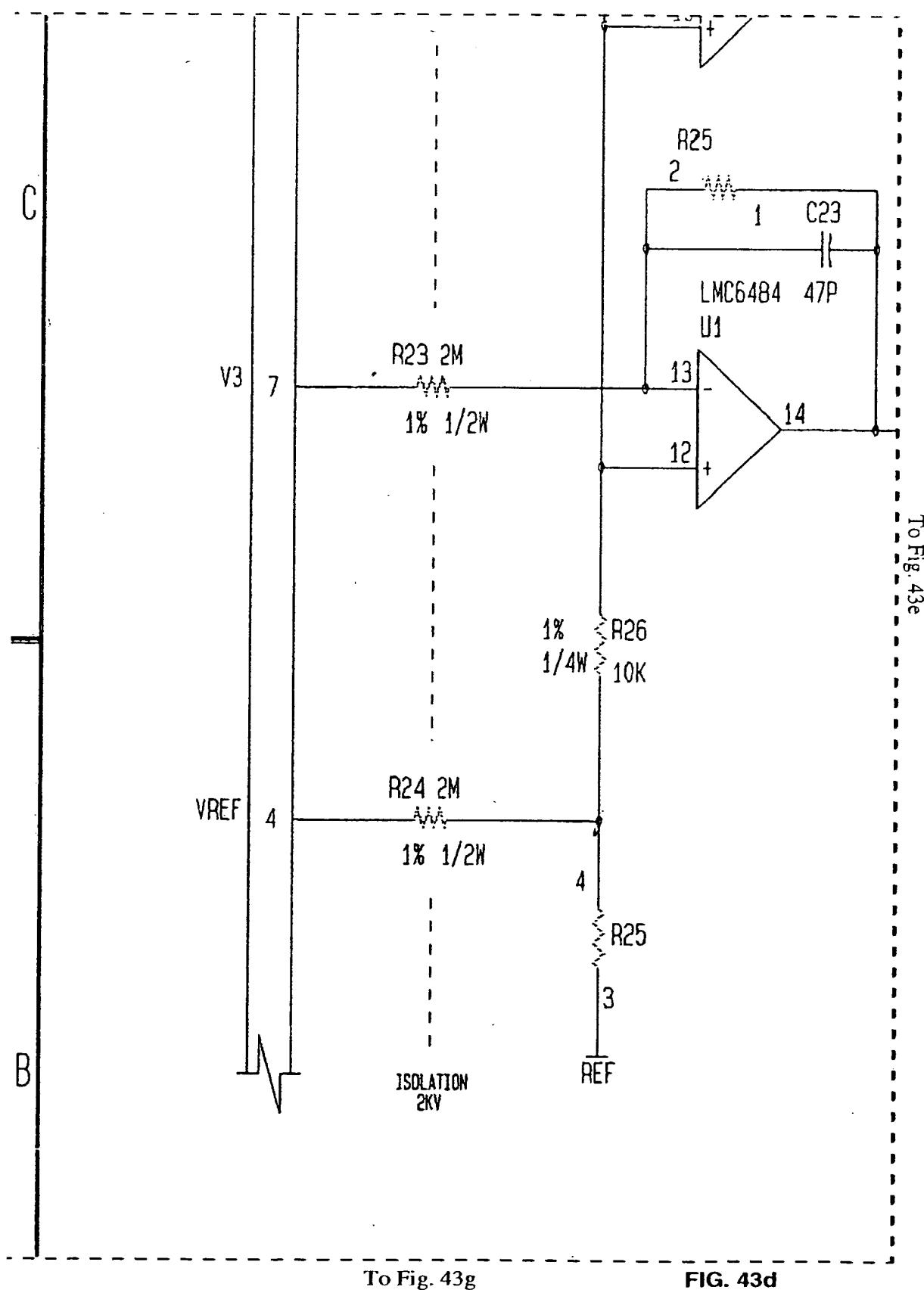
173 8 207





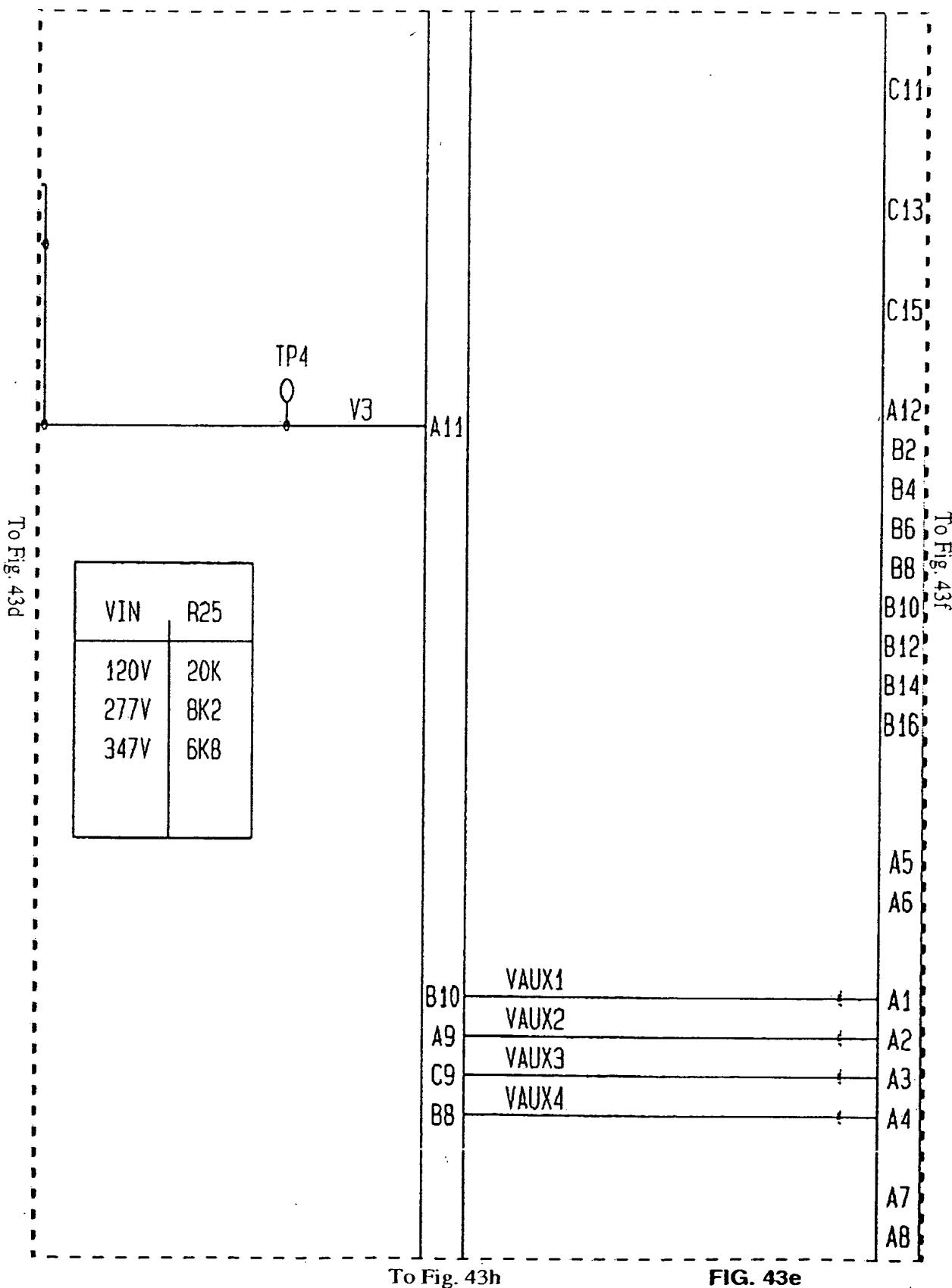
175 8 207

To Fig. 43a



176 48 207

To Fig. 43b



177 88 207

To Fig. 43c

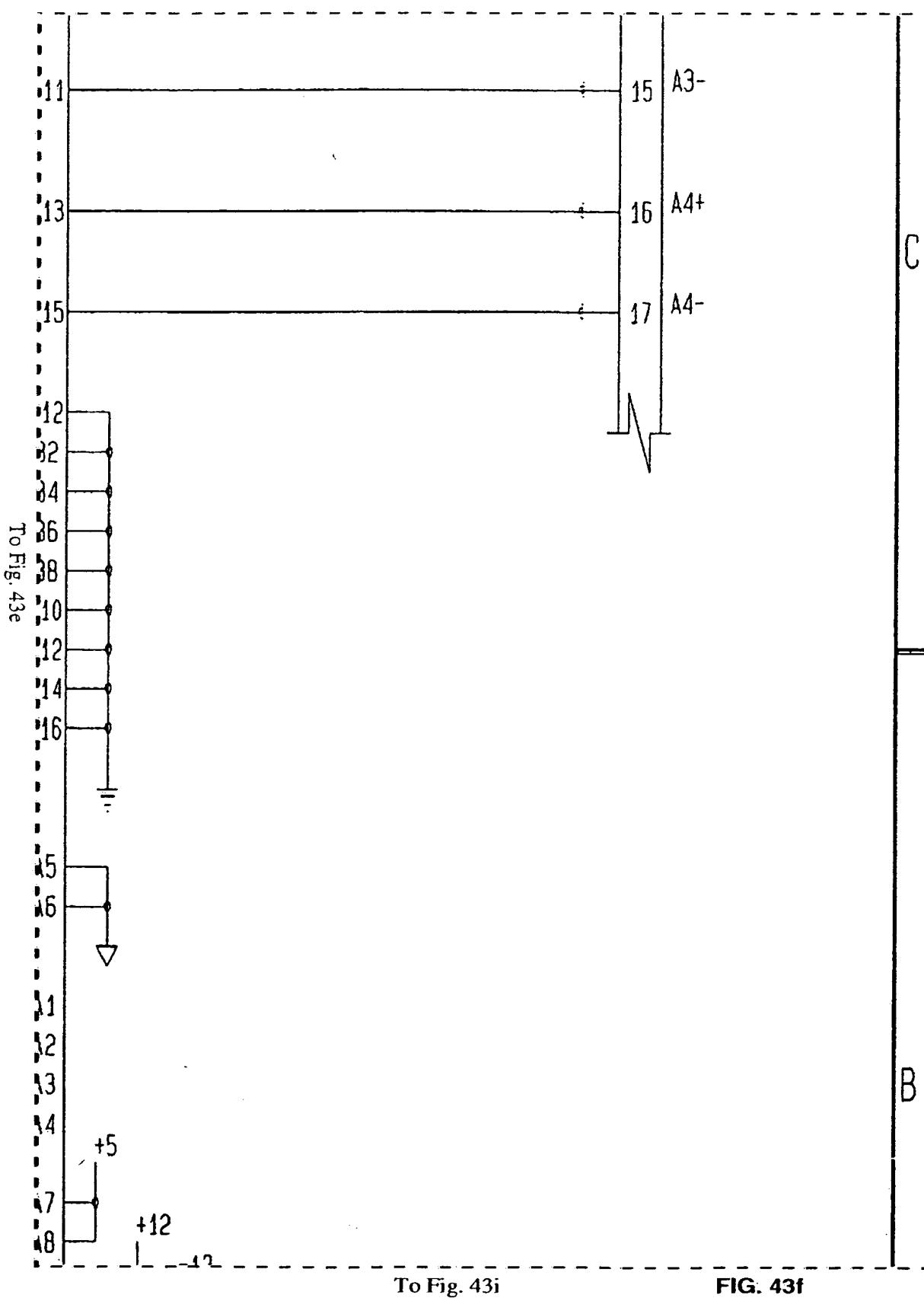


FIG. 43f

To Fig. 43d

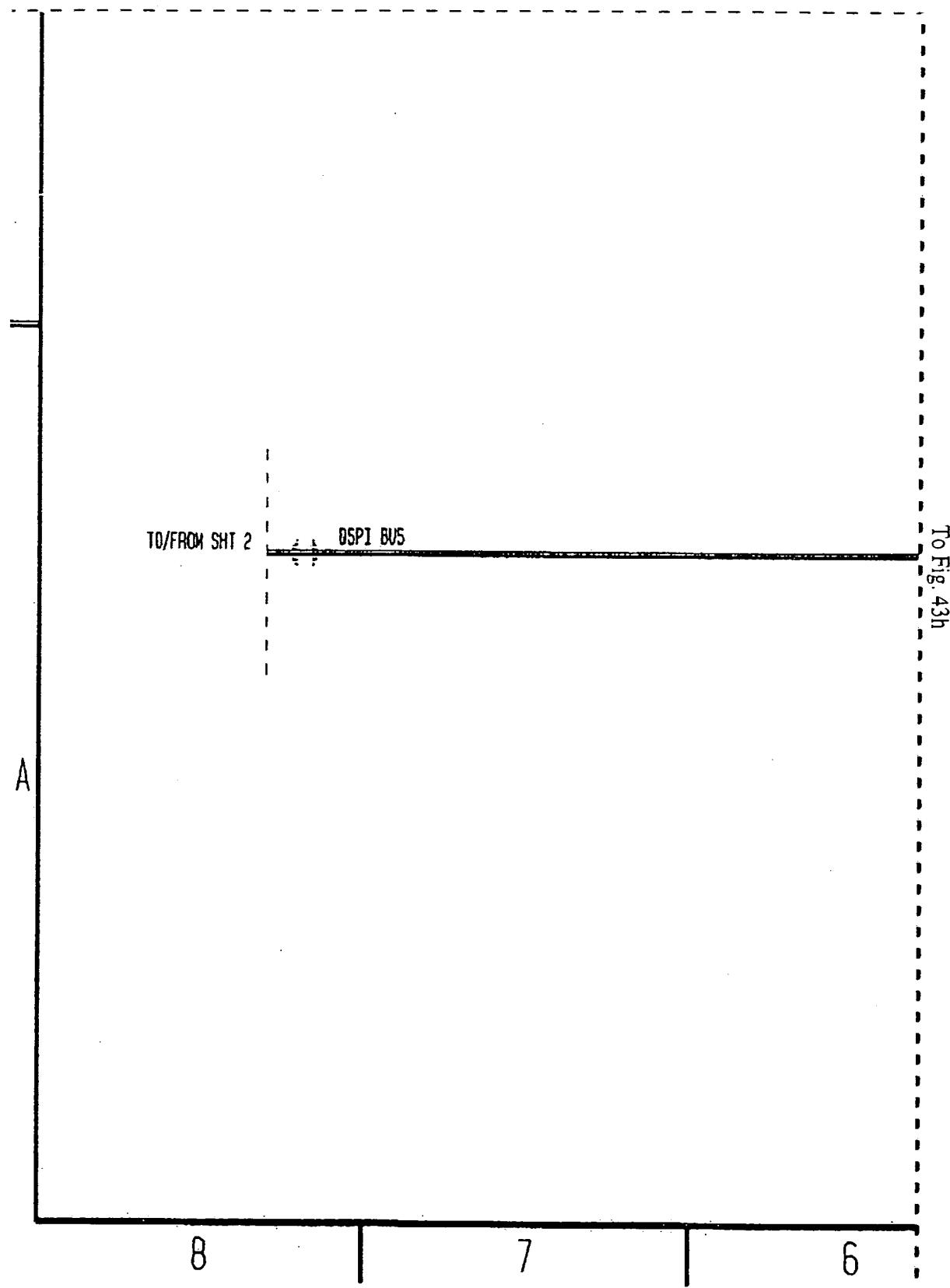


FIG. 43g

179 08 207

To Fig. 43e

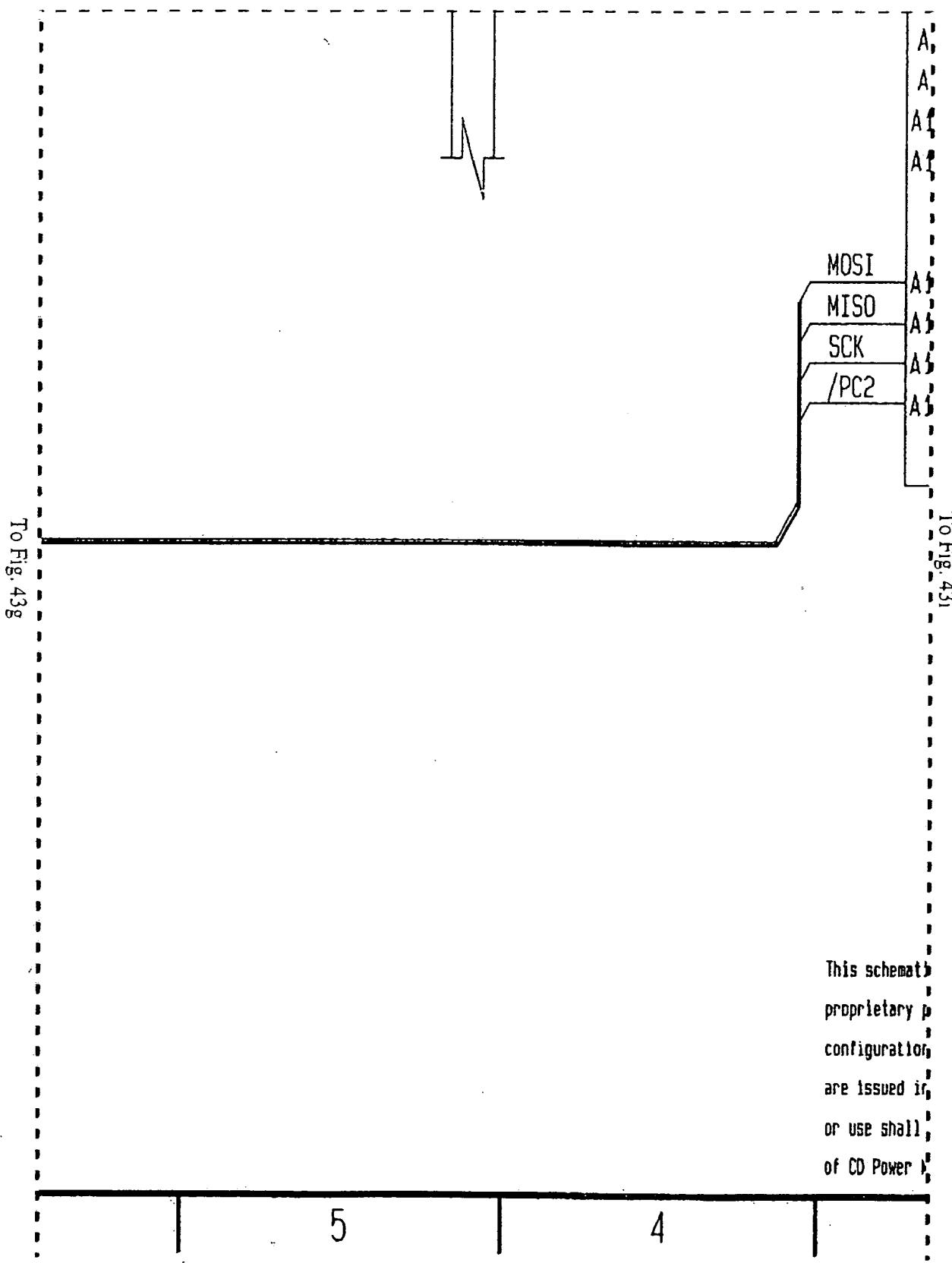


FIG. 43h

180 of 207

To Fig. 43f

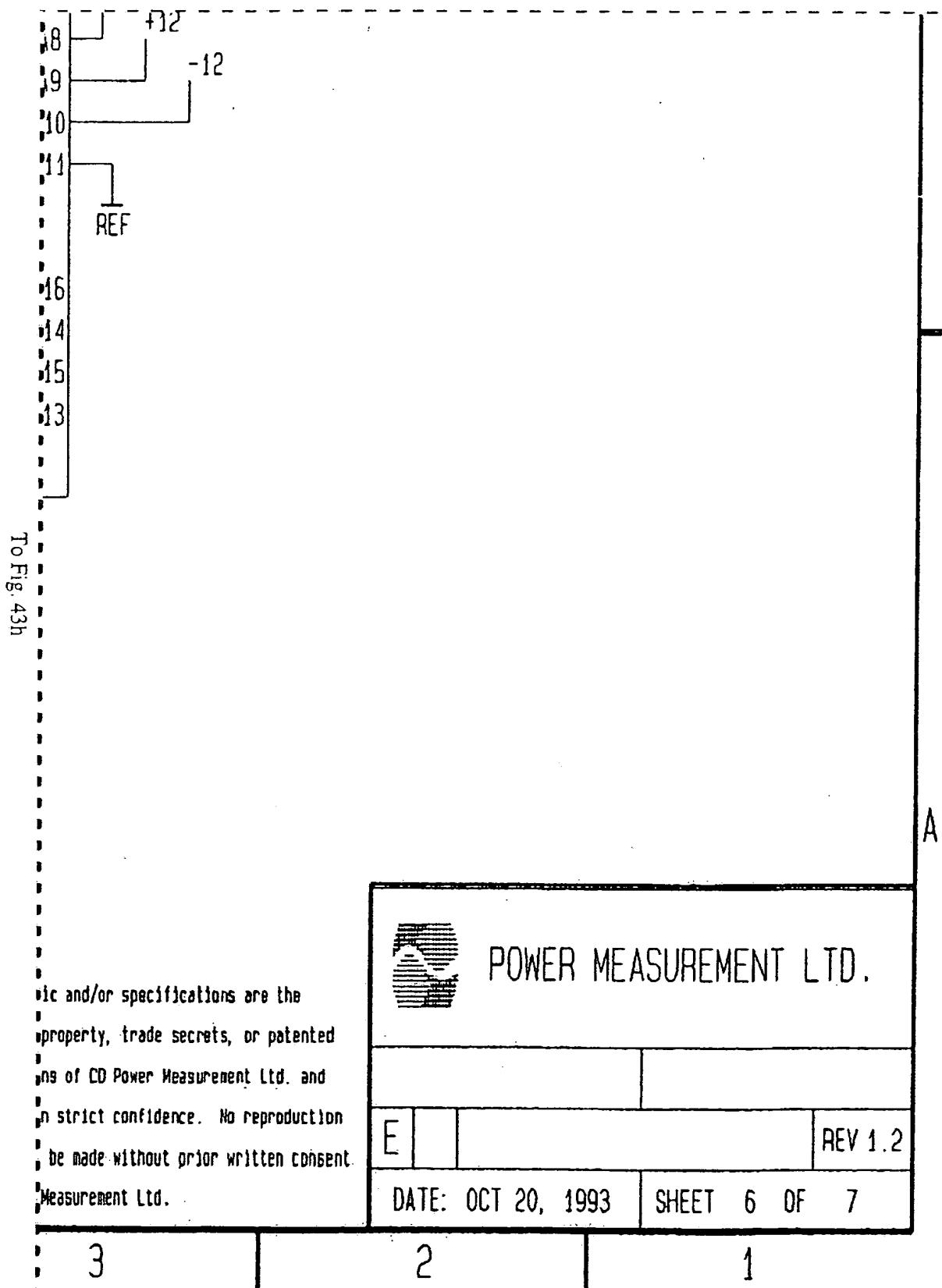


FIG. 43i

181 08 07

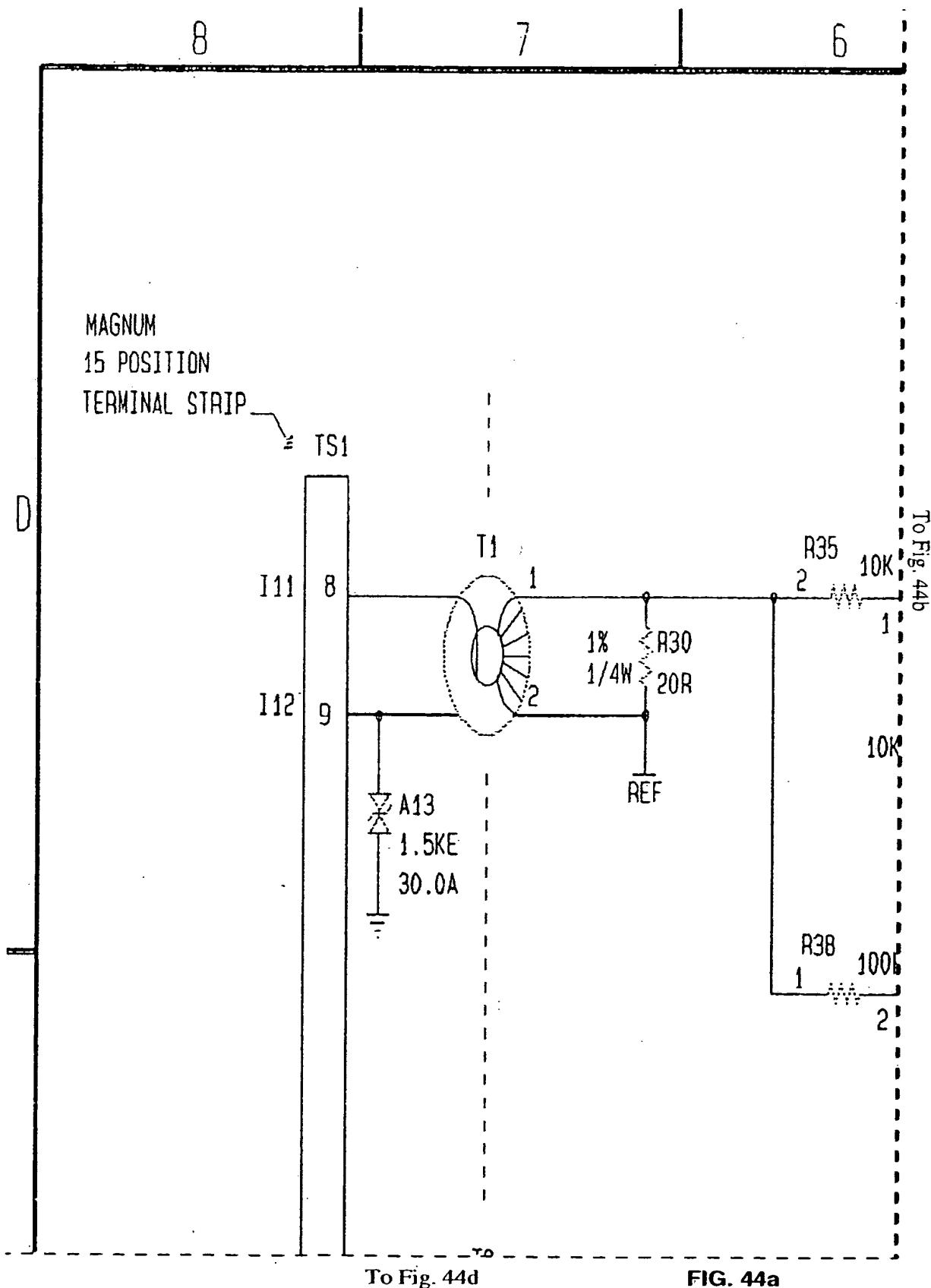


FIG. 44a

182 8207

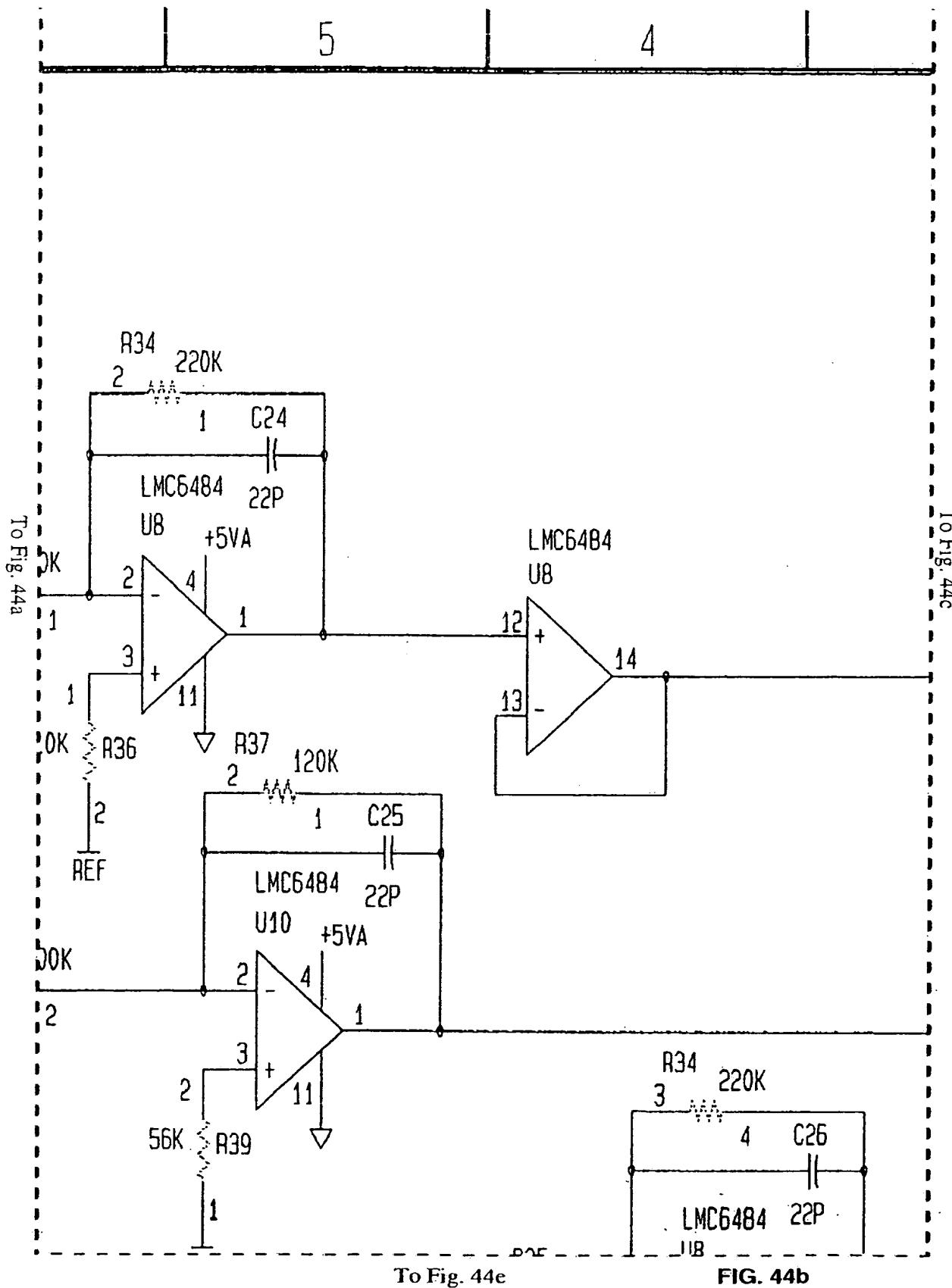


FIG. 44b

Patent Application for: PHASOR TRANSDUCER APPARATUS AND SYSTEM FOR PROTECTION, CONTROL, AND  
MANAGEMENT OF ELECTRICITY DISTRIBUTION SYSTEMS

Inventor(s): Ronald G. Hart

Attorney Docket No. 6270/76, Serial No. 10/068,431

183 18 267

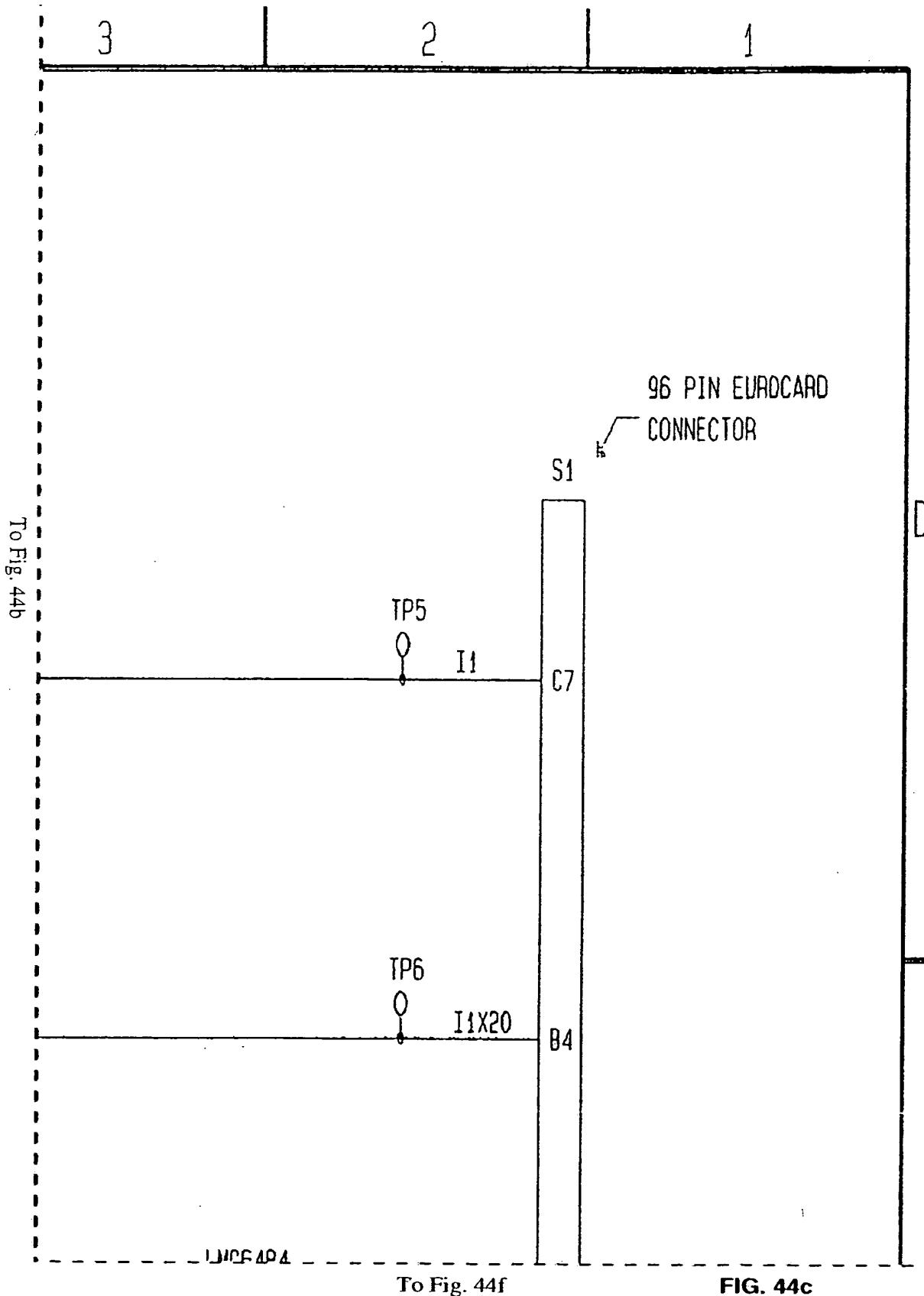
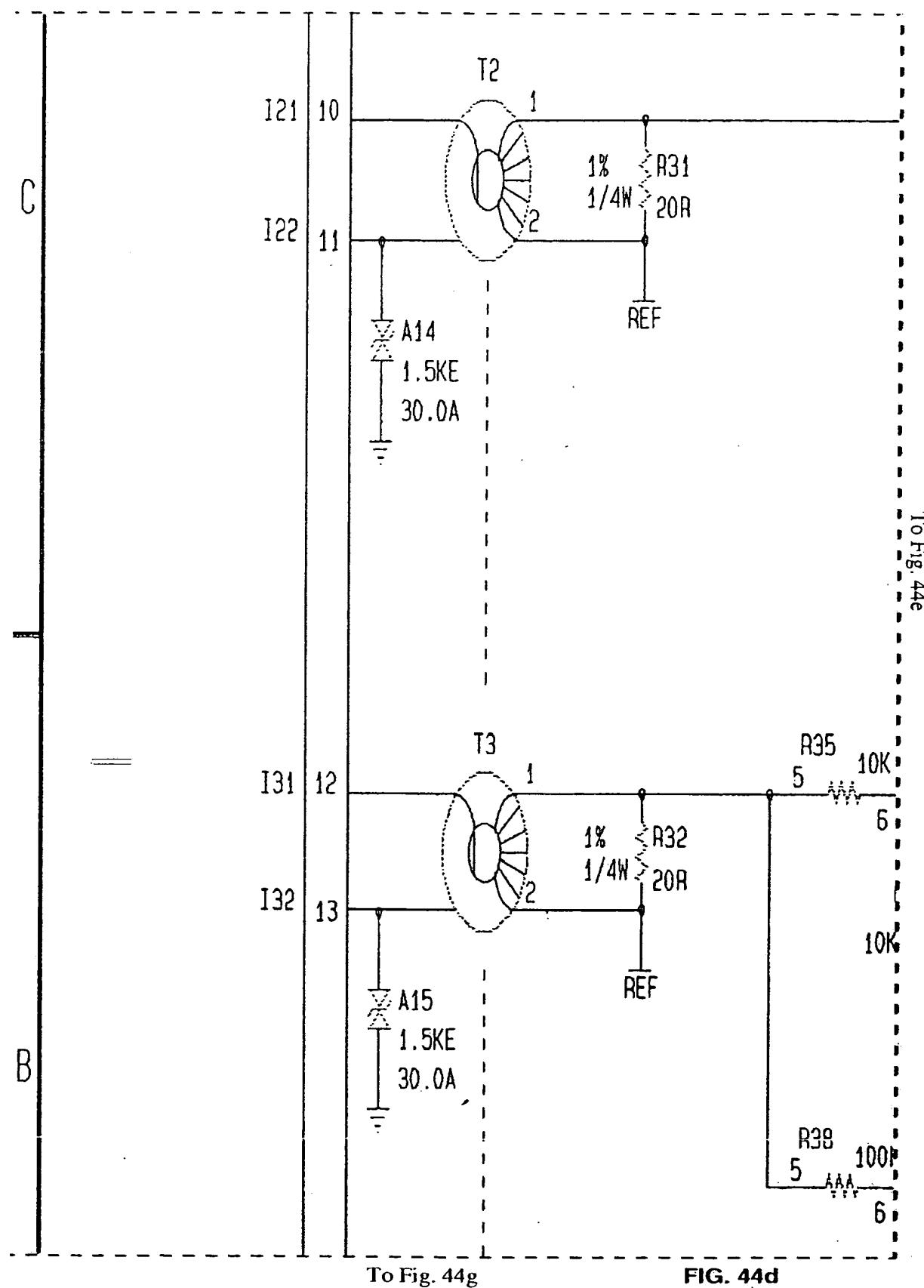
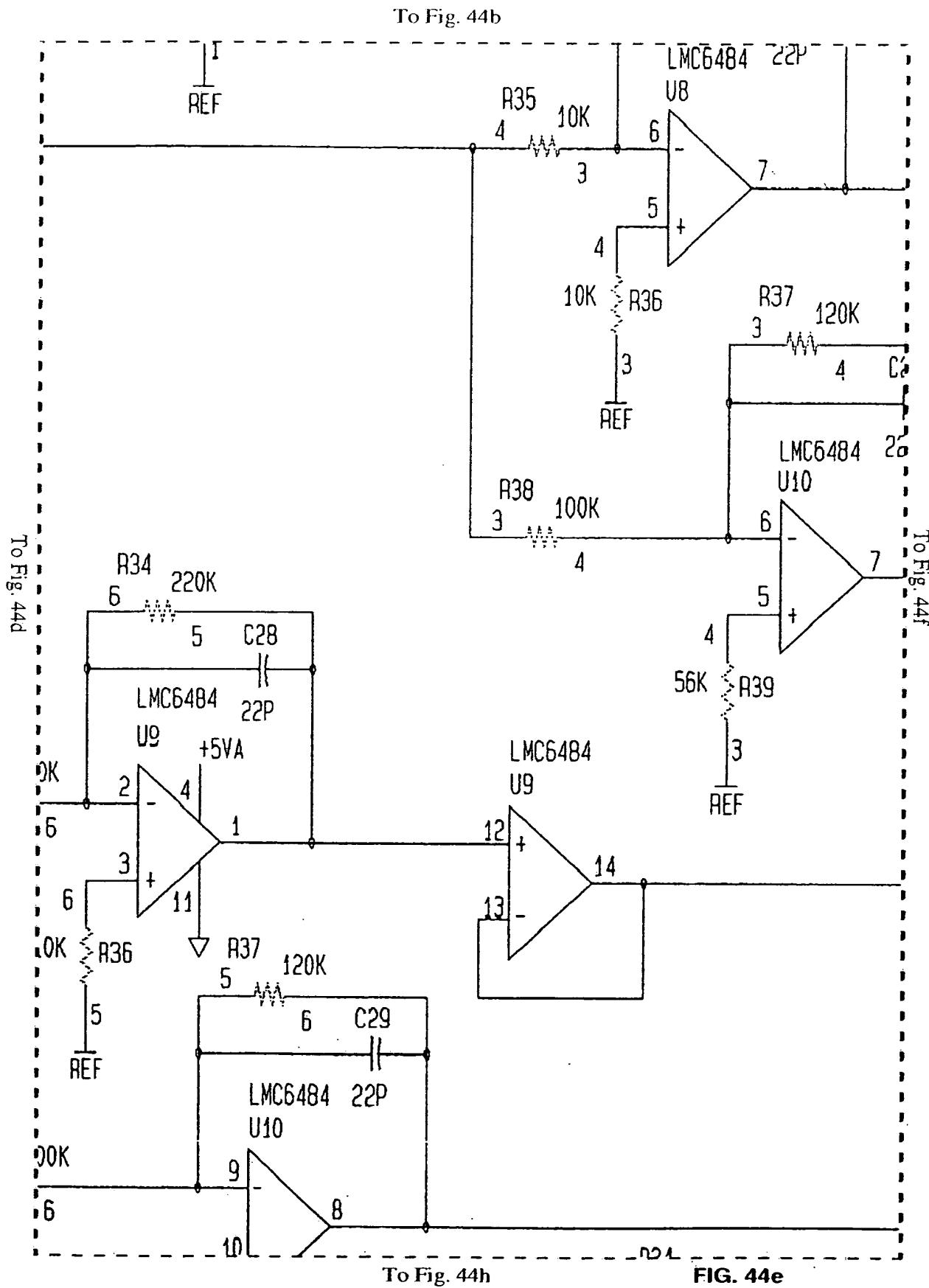


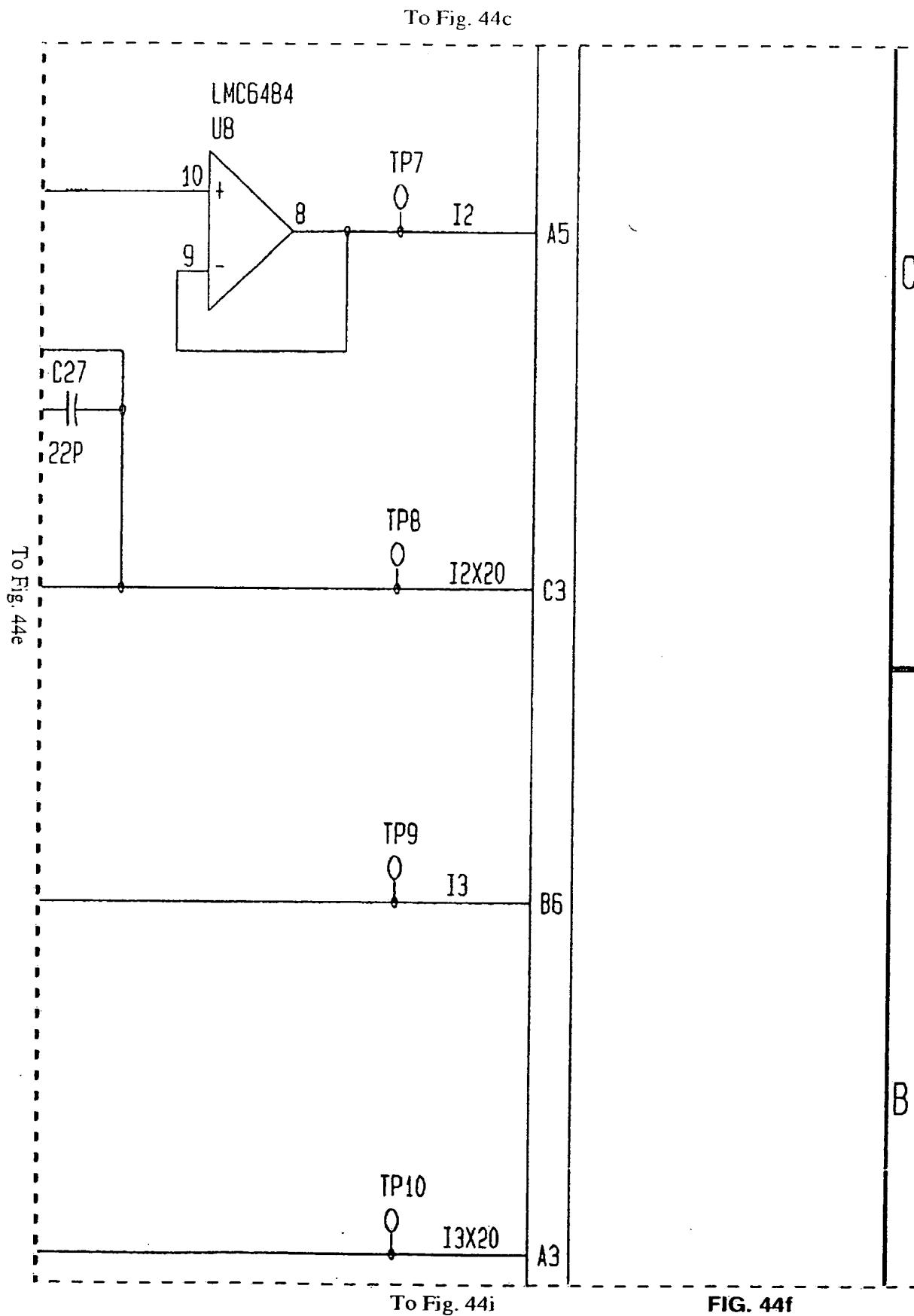
FIG. 44c

184 08207

To Fig. 44a







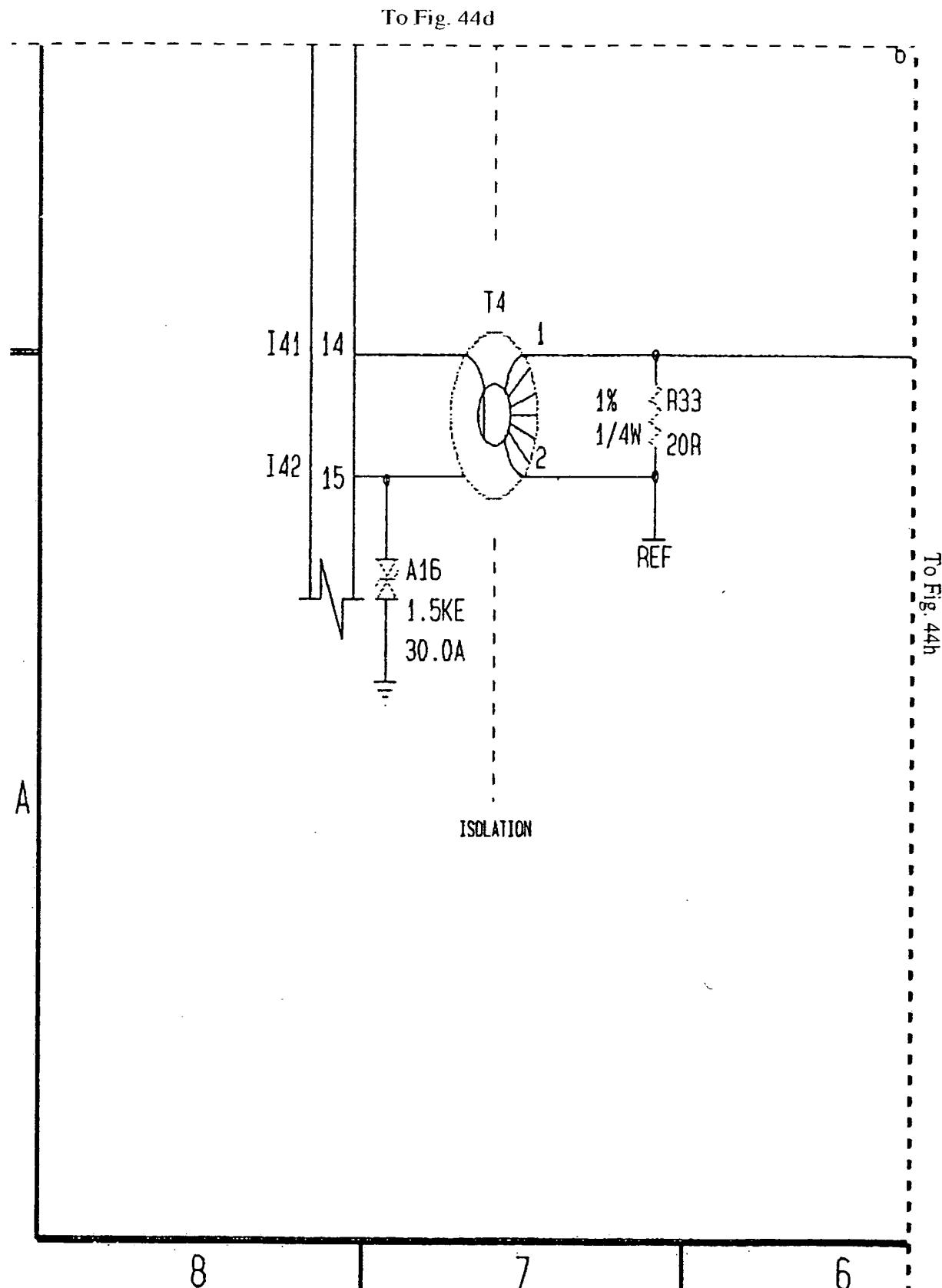
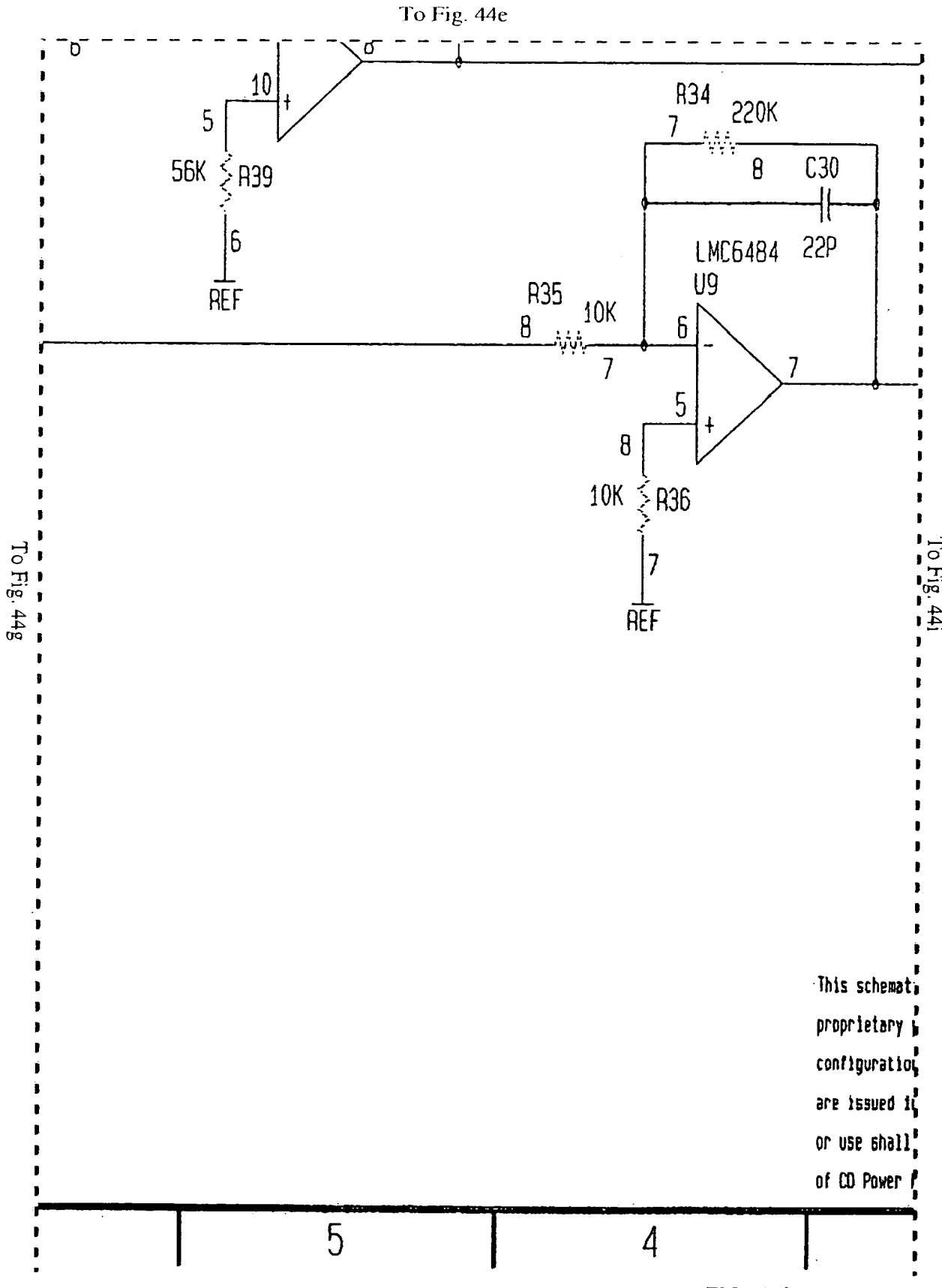


FIG. 44g



**FIG. 44h**

To Fig. 44f

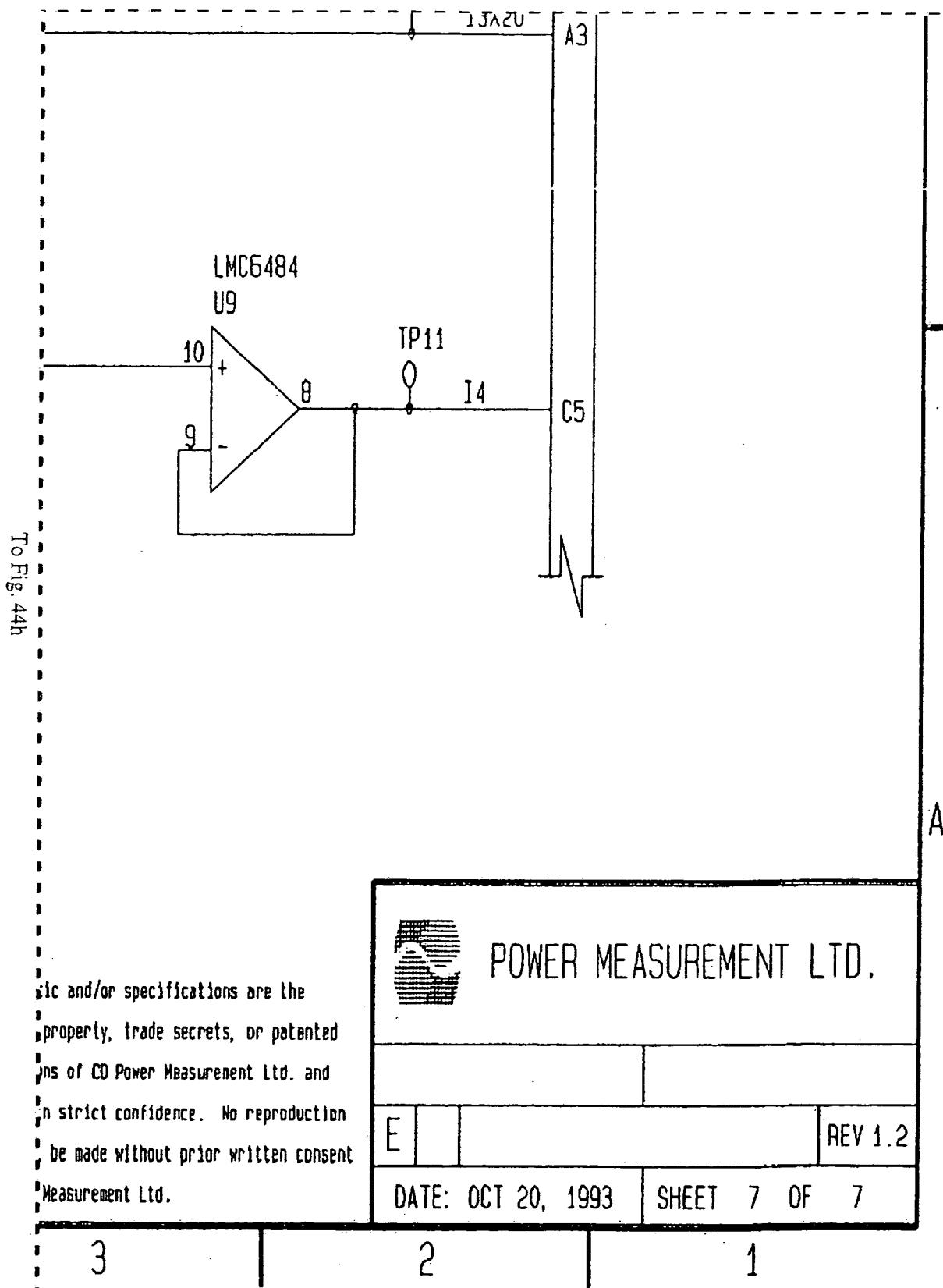
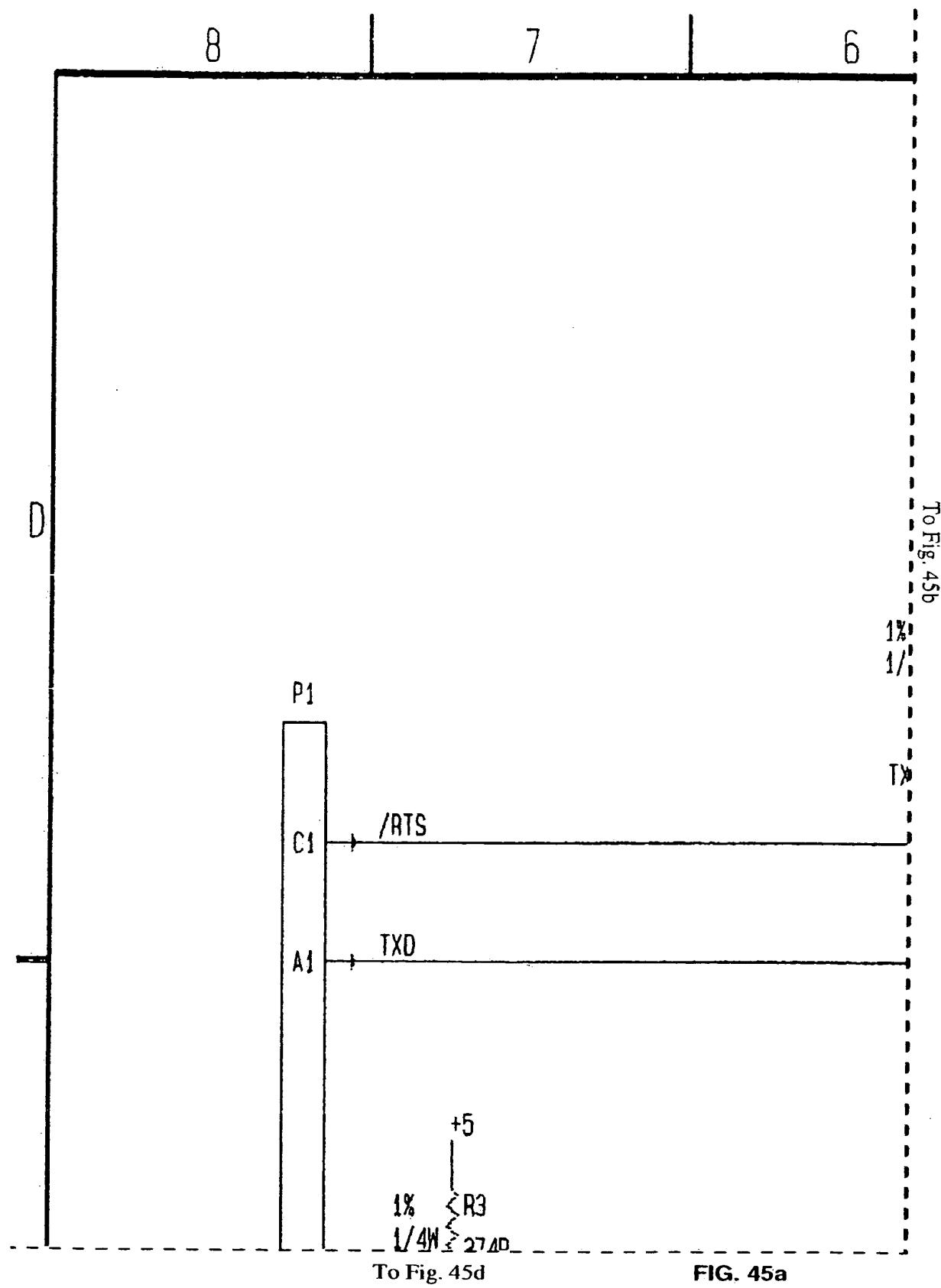
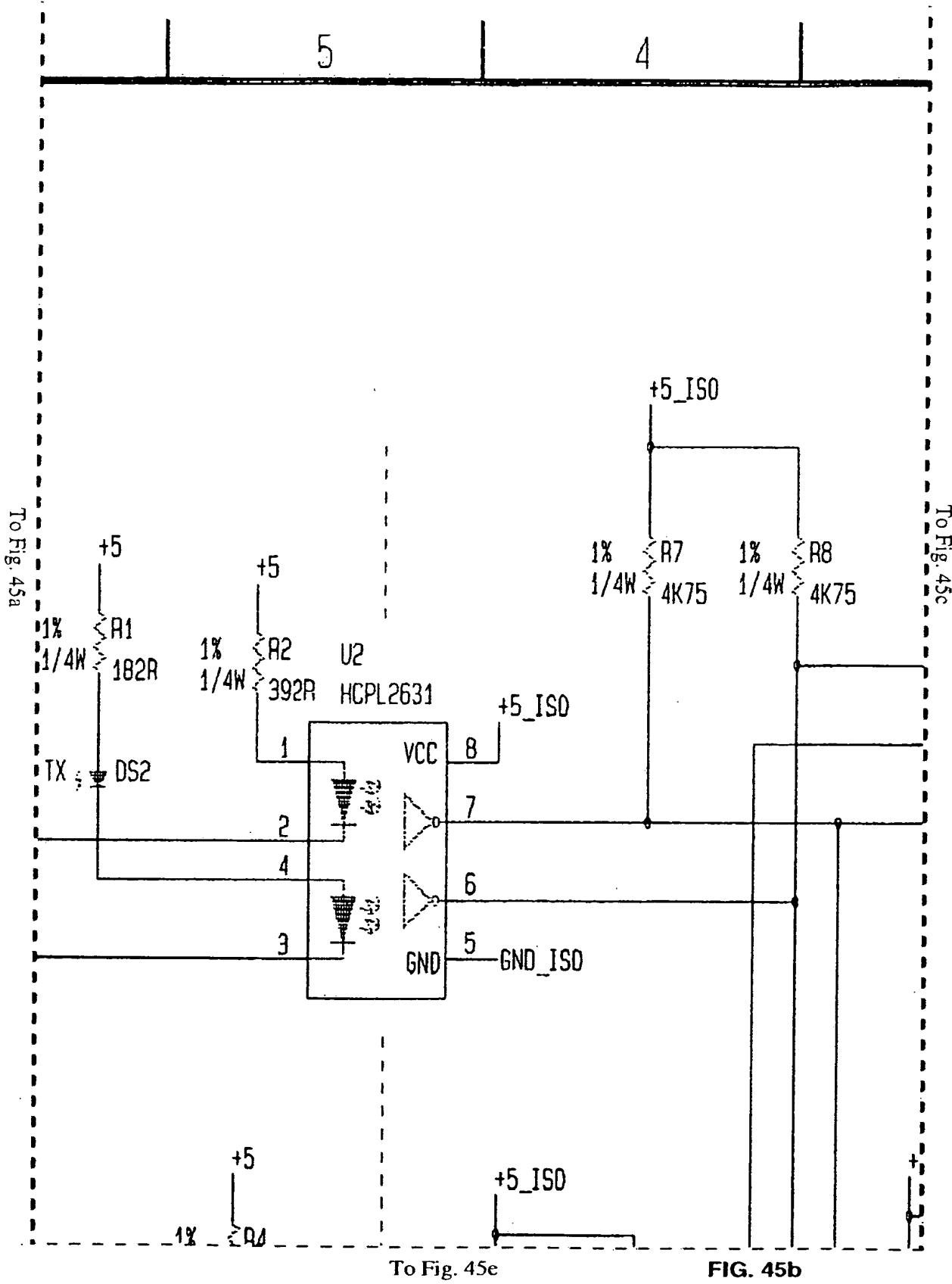
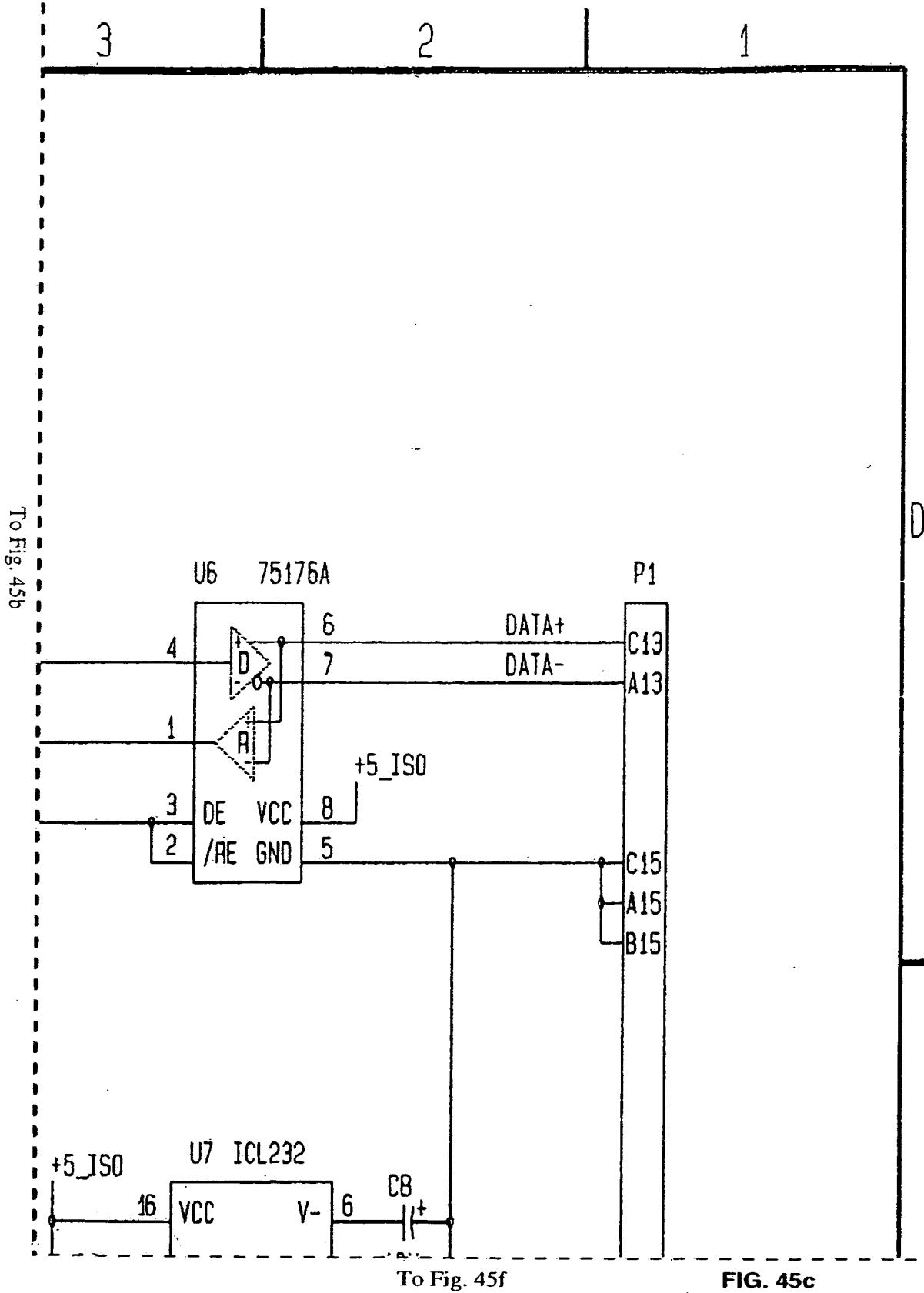
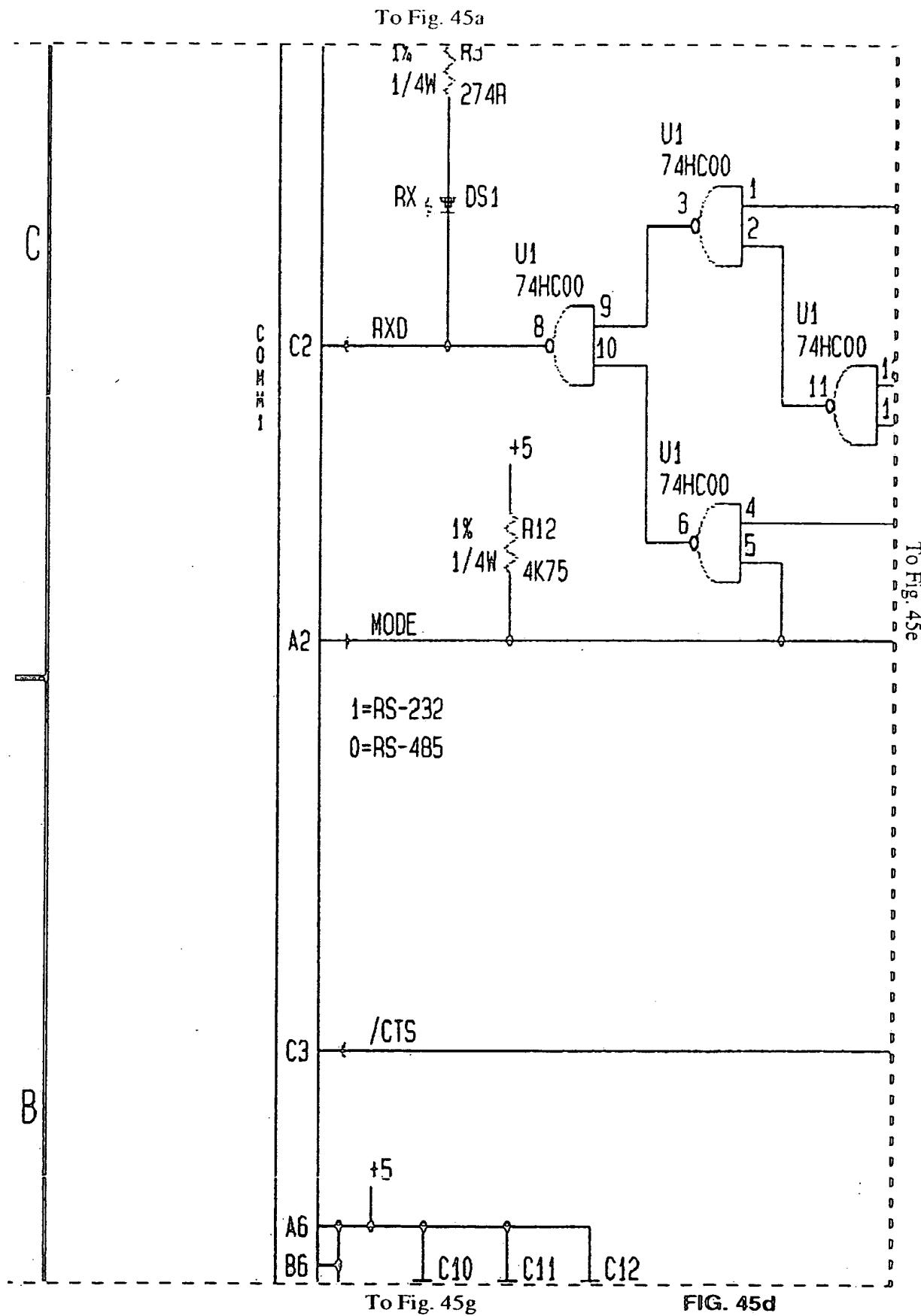


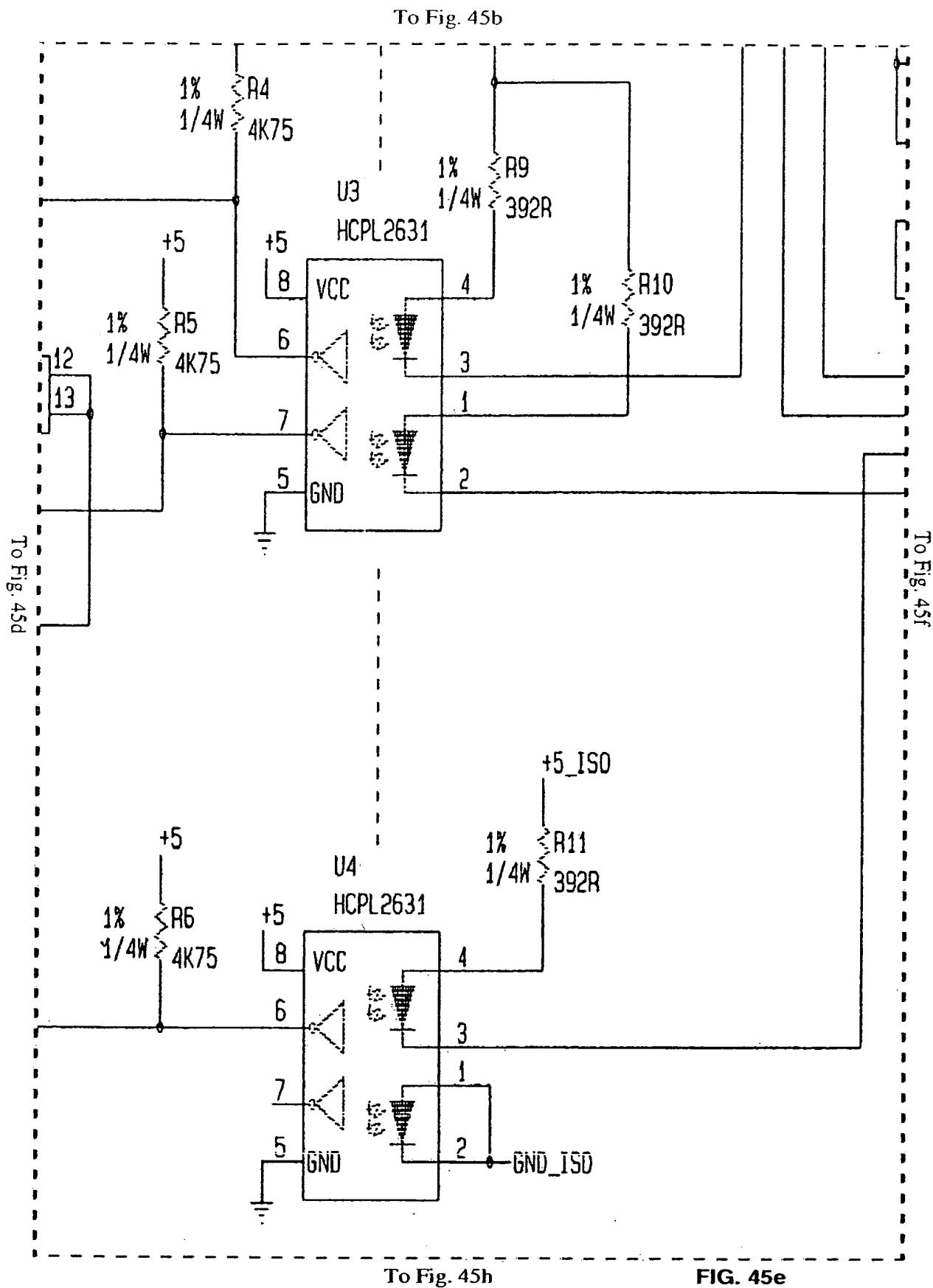
FIG. 44i

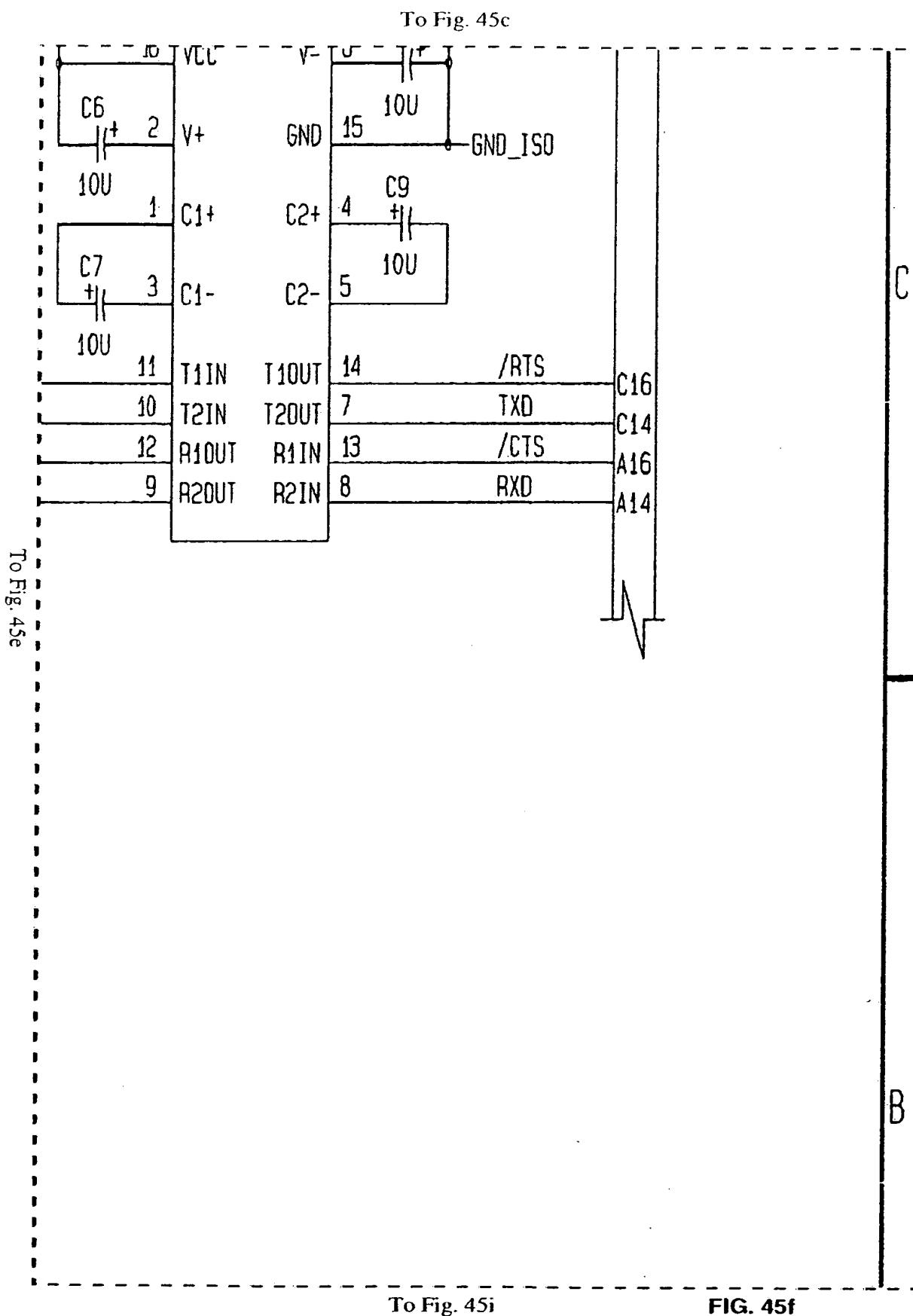


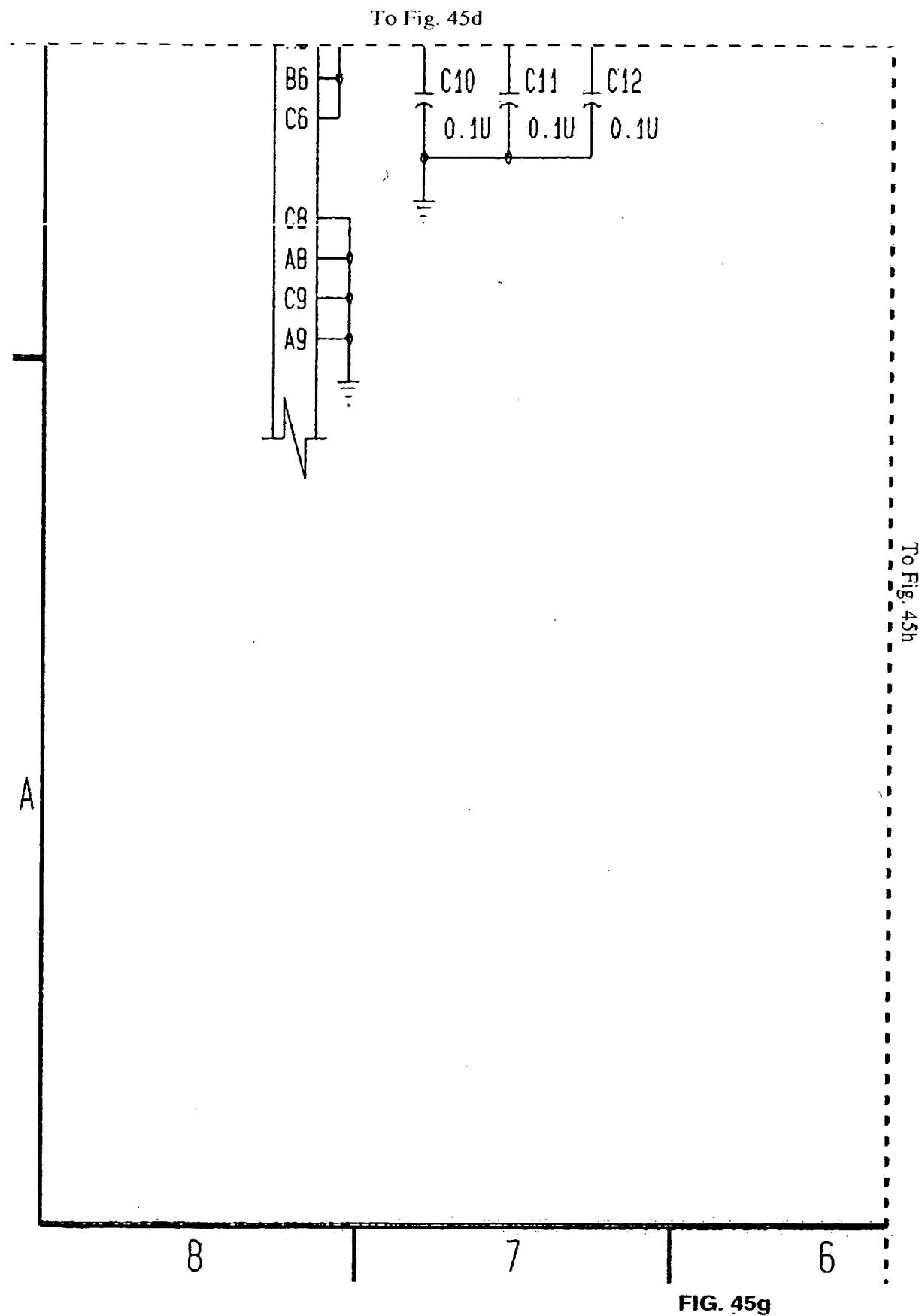












9708207

To Fig. 45e

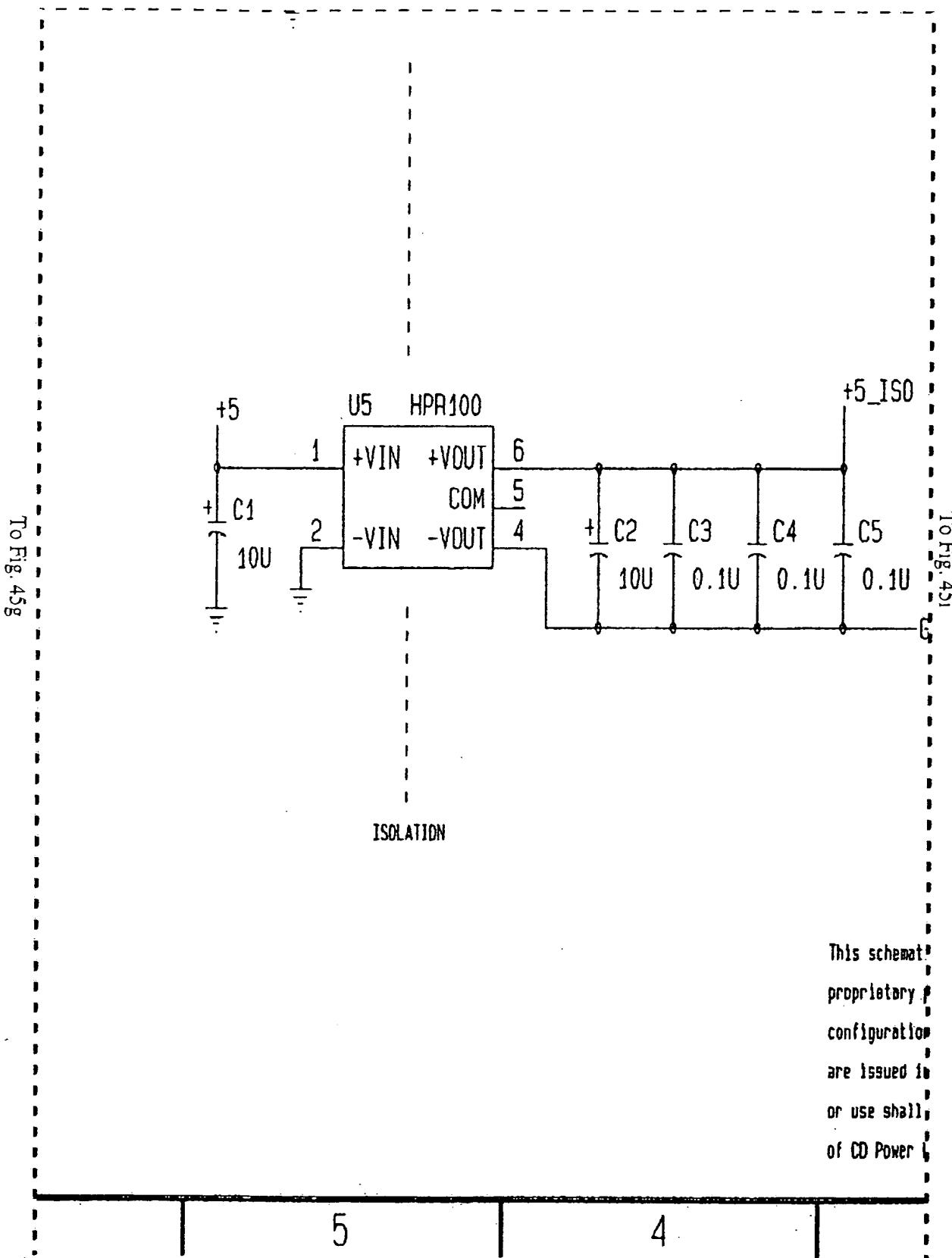


FIG. 45h

To Fig. 45f

To Fig. 45h

SND\_ISO

A

hic and/or specifications are the  
property, trade secrets, or patented  
of CD Power Measurement Ltd. and  
in strict confidence. No reproduction  
be made without prior written consent  
Measurement Ltd.

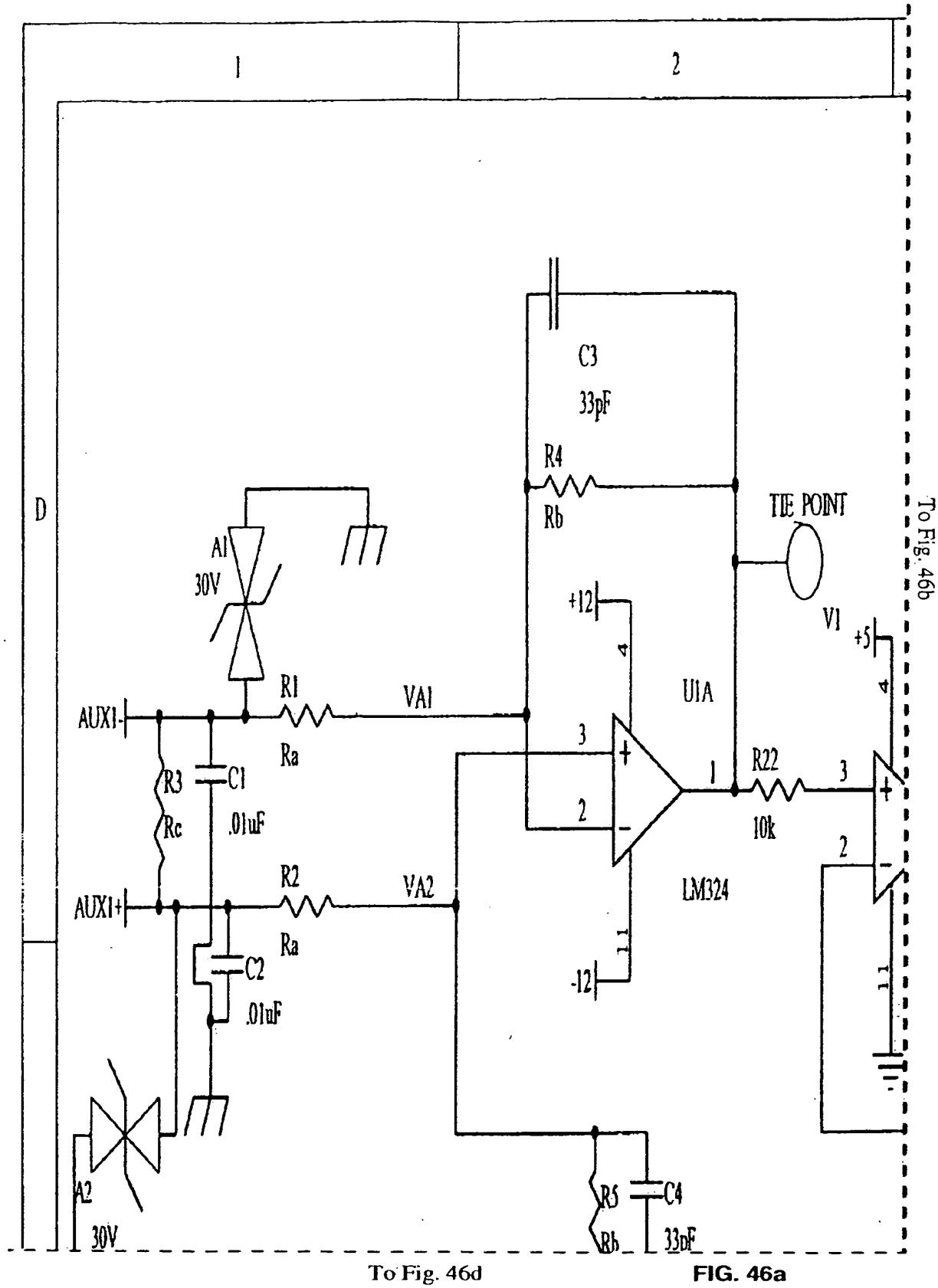
	POWER MEASUREMENT LTD.	
DWG# 14500-0023		
E		REV 1.1
DATE: JAN 7, 1993		SHEET 1 OF 1

3

2

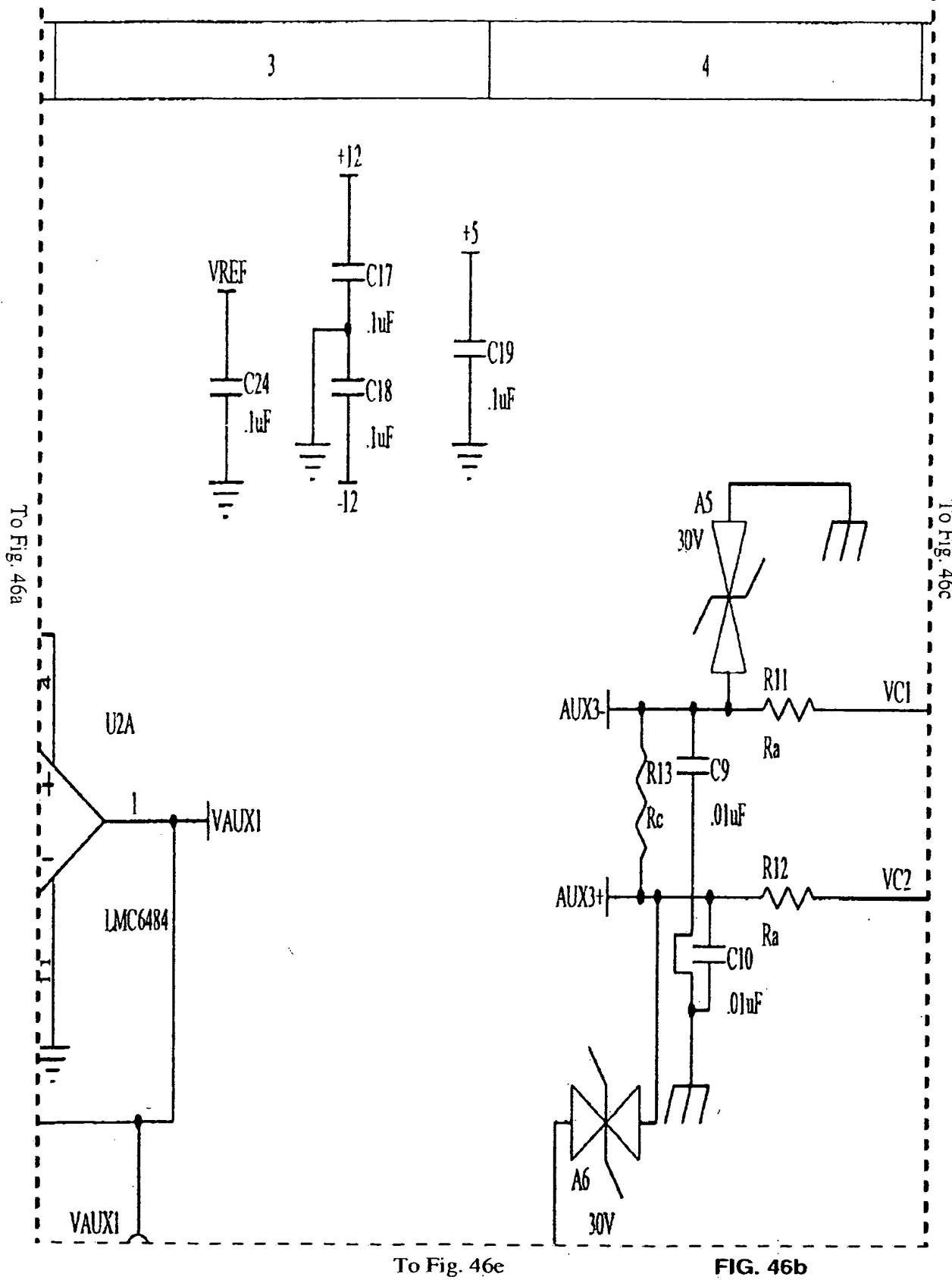
1

FIG. 45i



To Fig. 46d

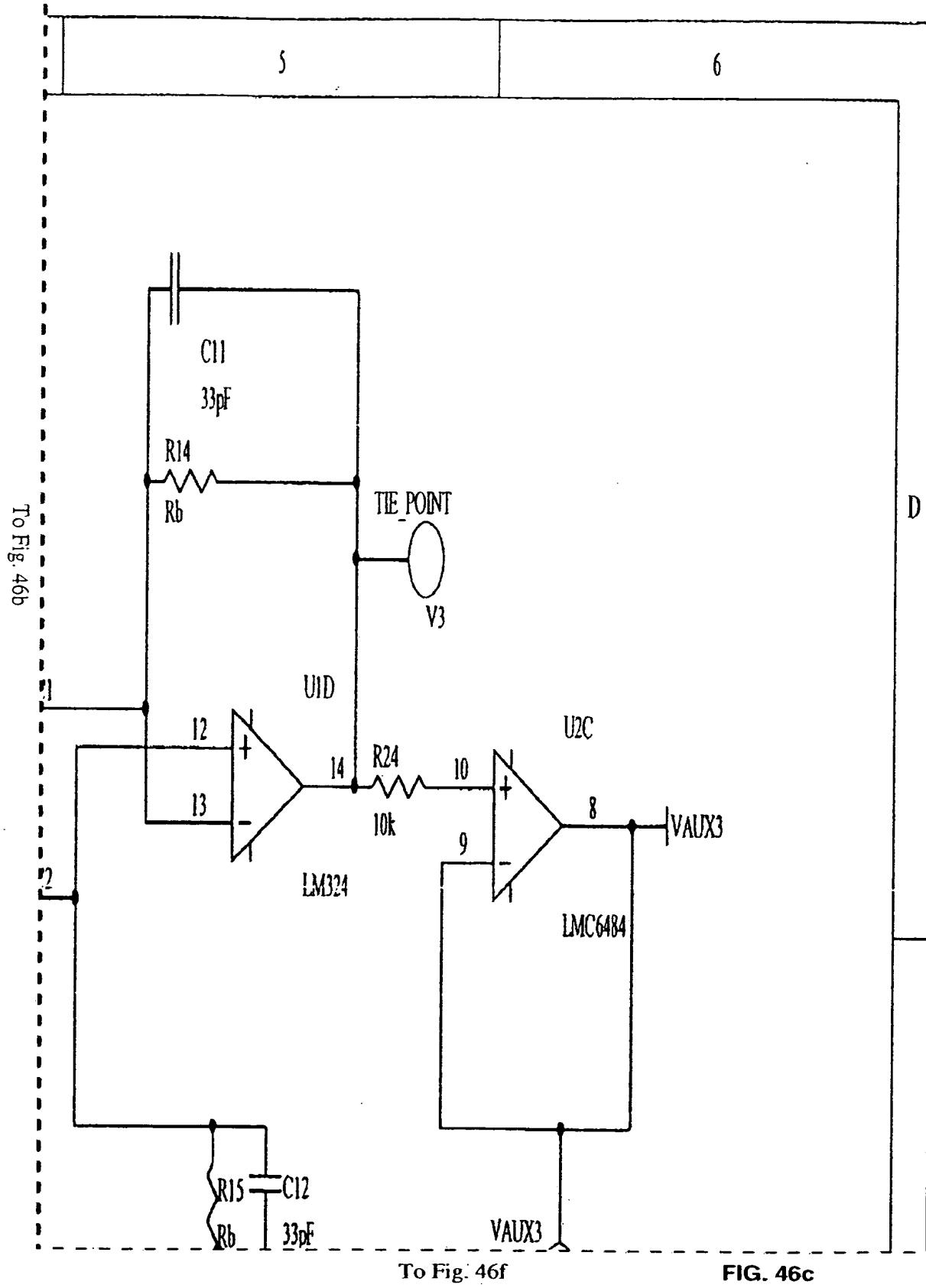
FIG. 46a



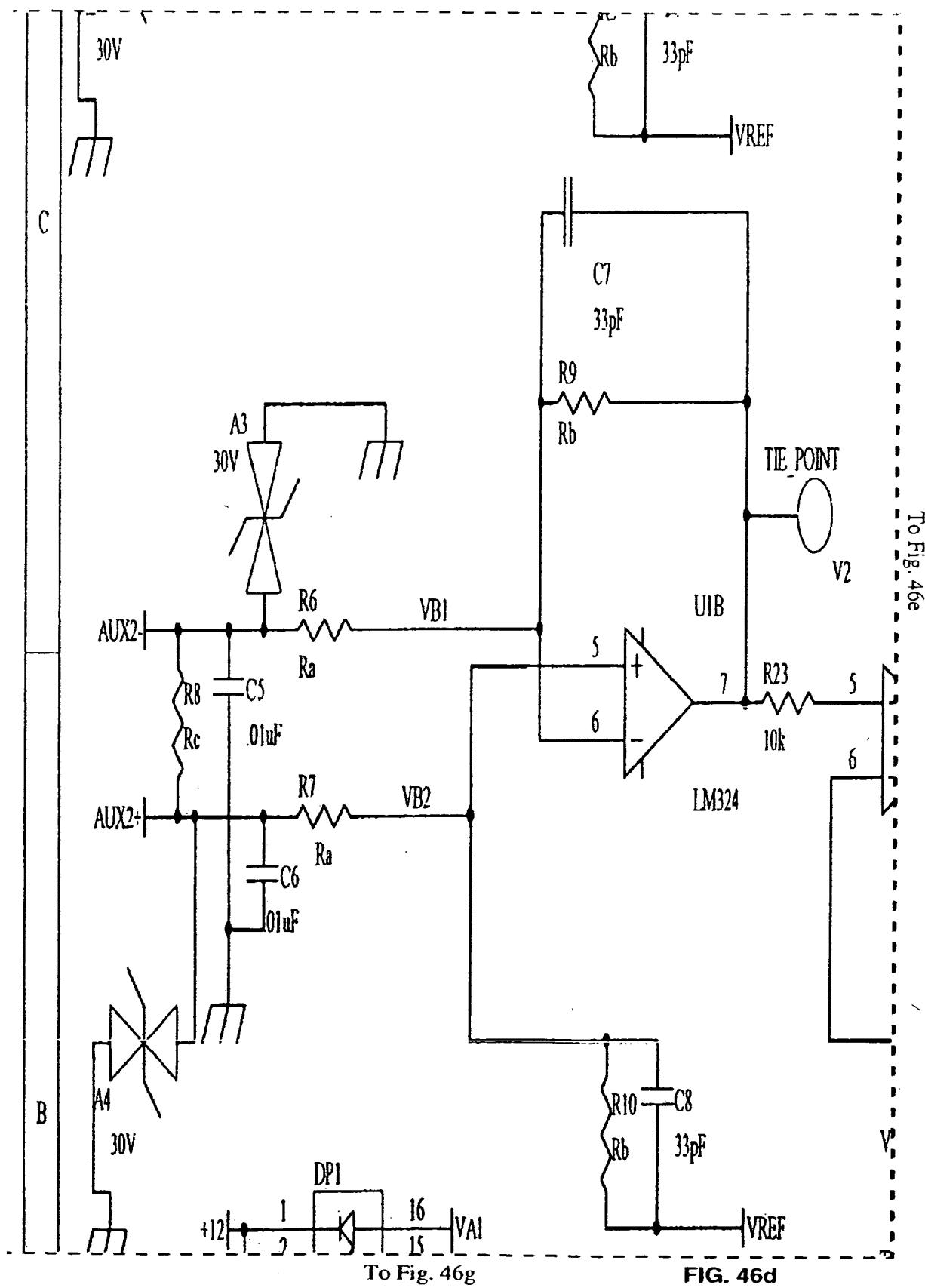
To Fig. 46e

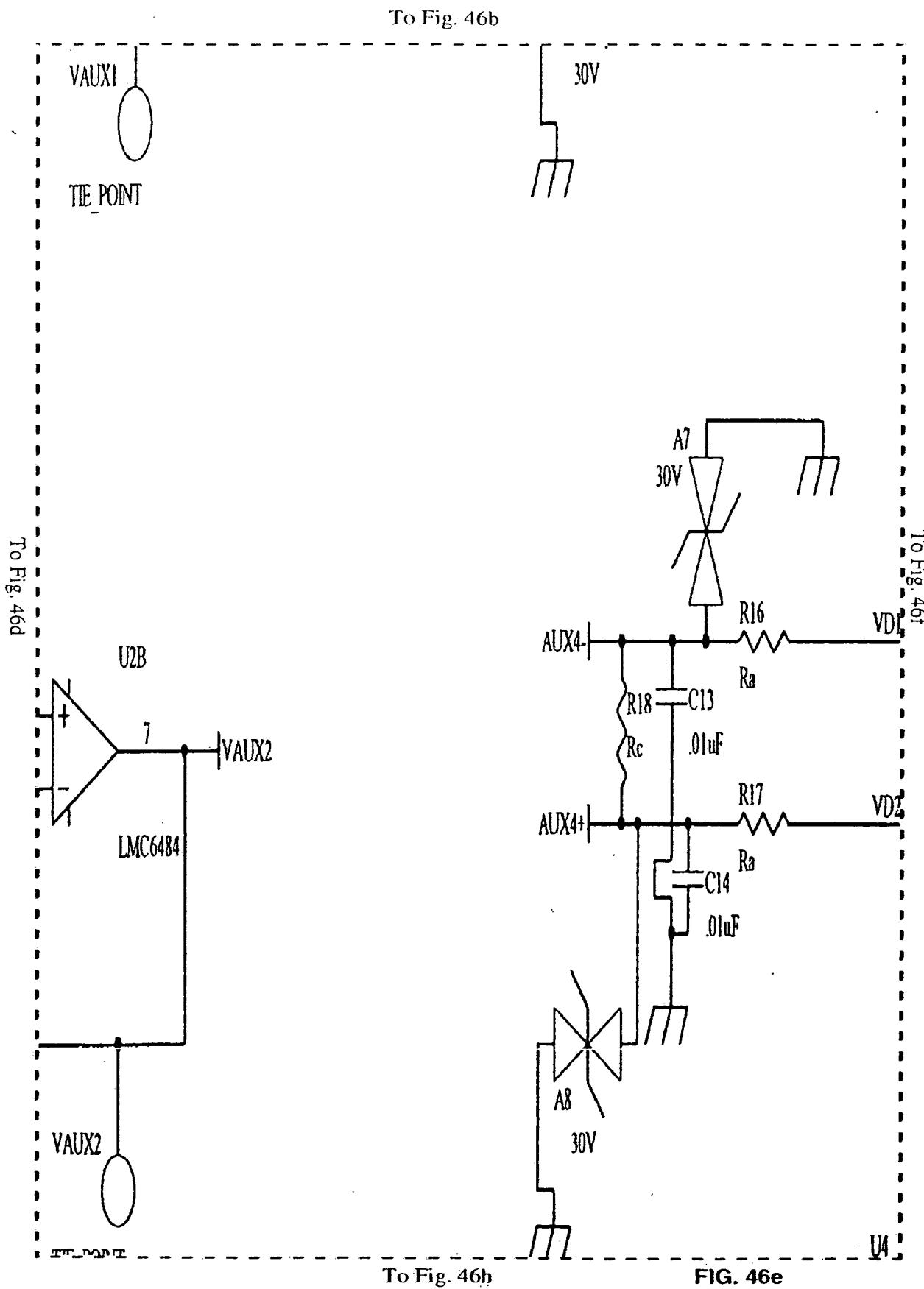
FIG. 46b

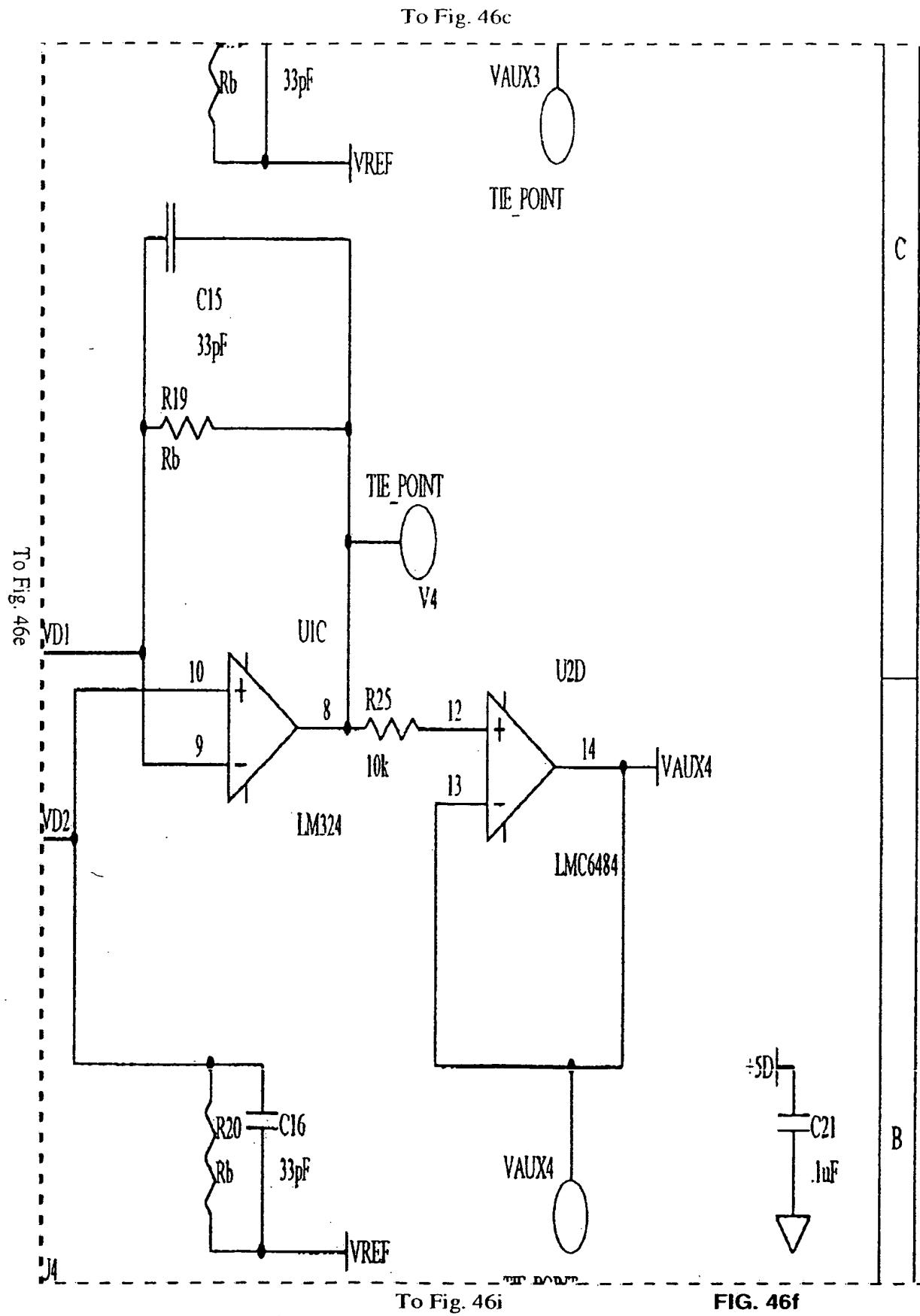
201 06 207



To Fig. 46a







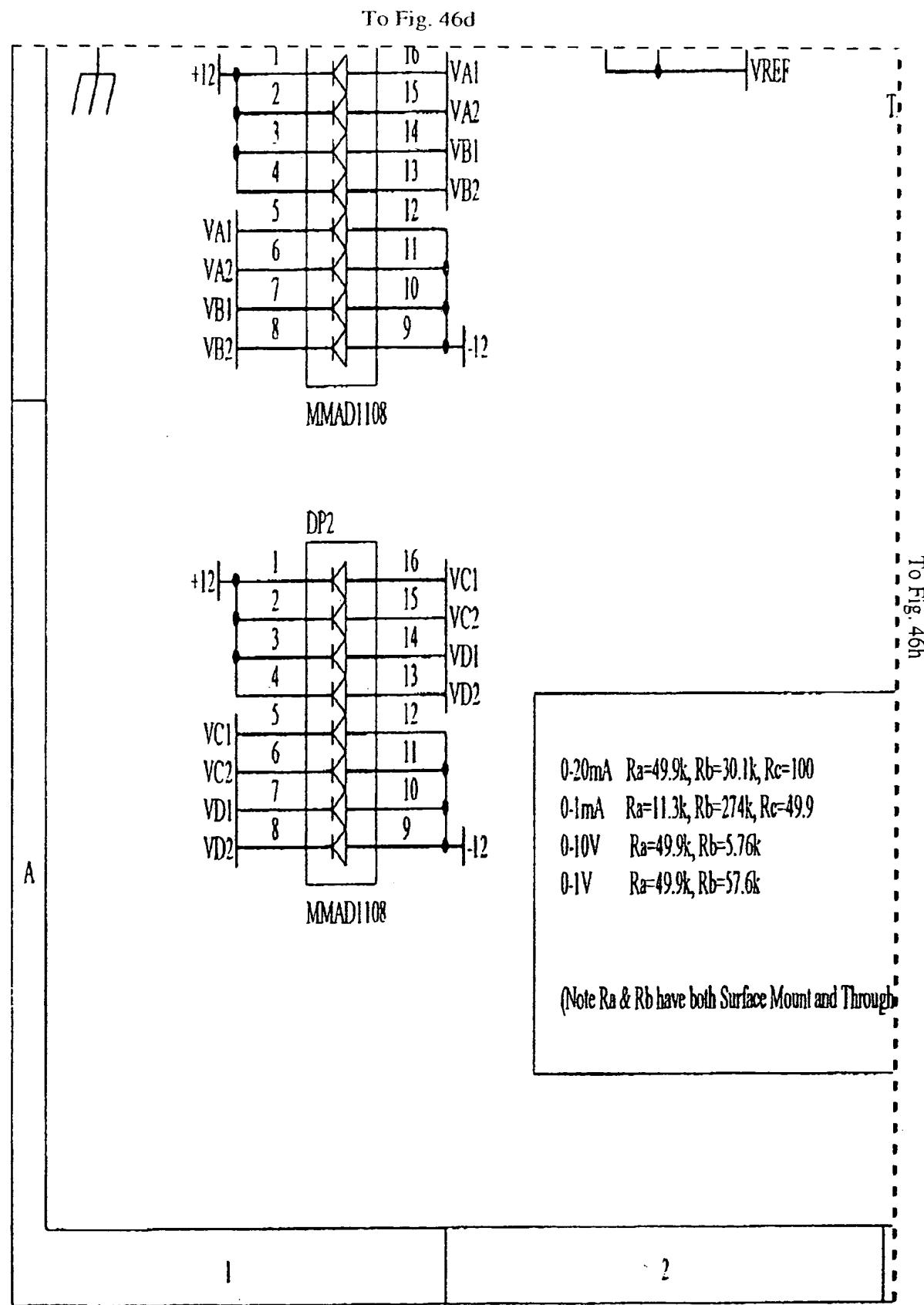


FIG. 46g

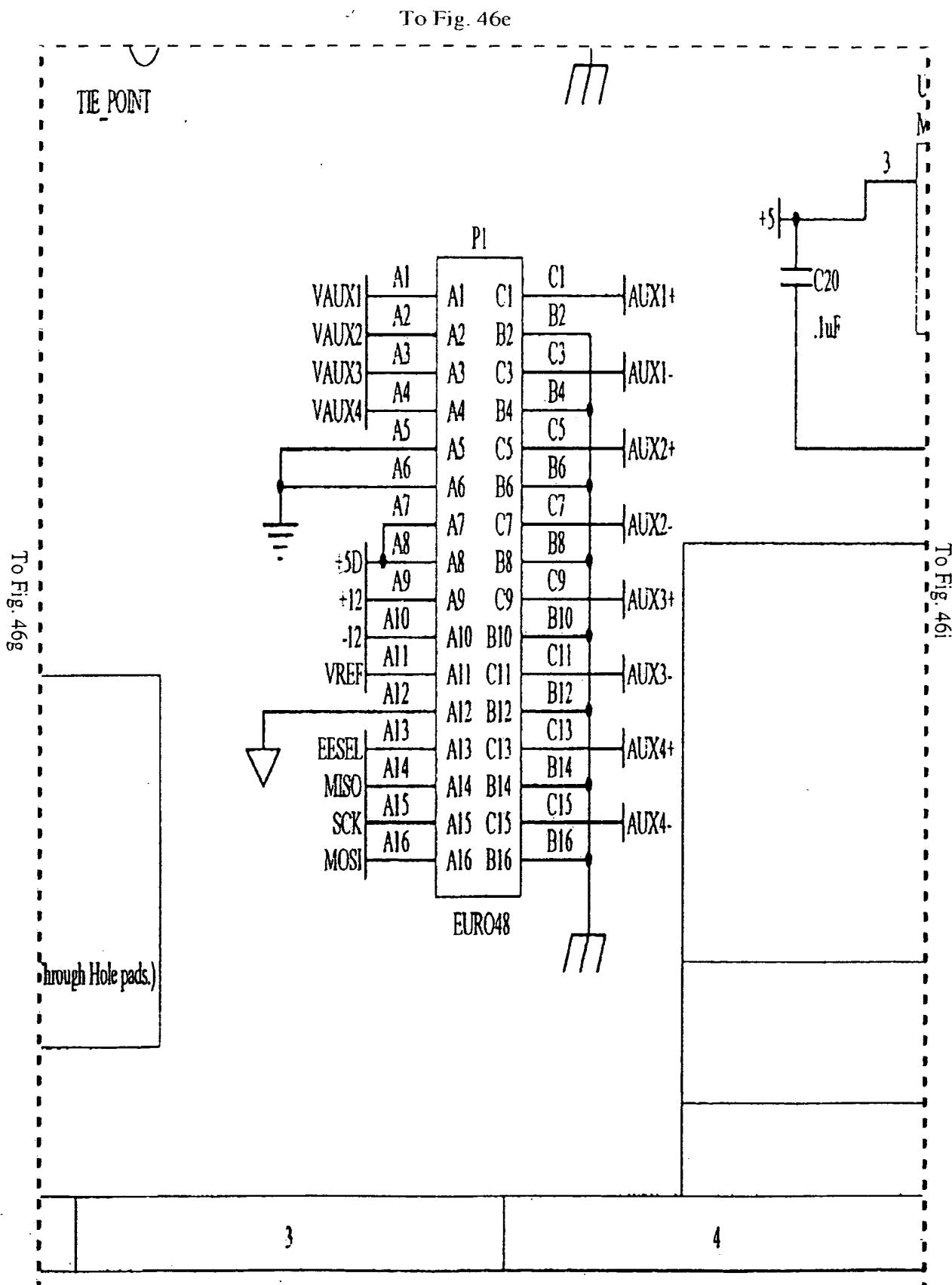


FIG. 46h

To Fig. 46f

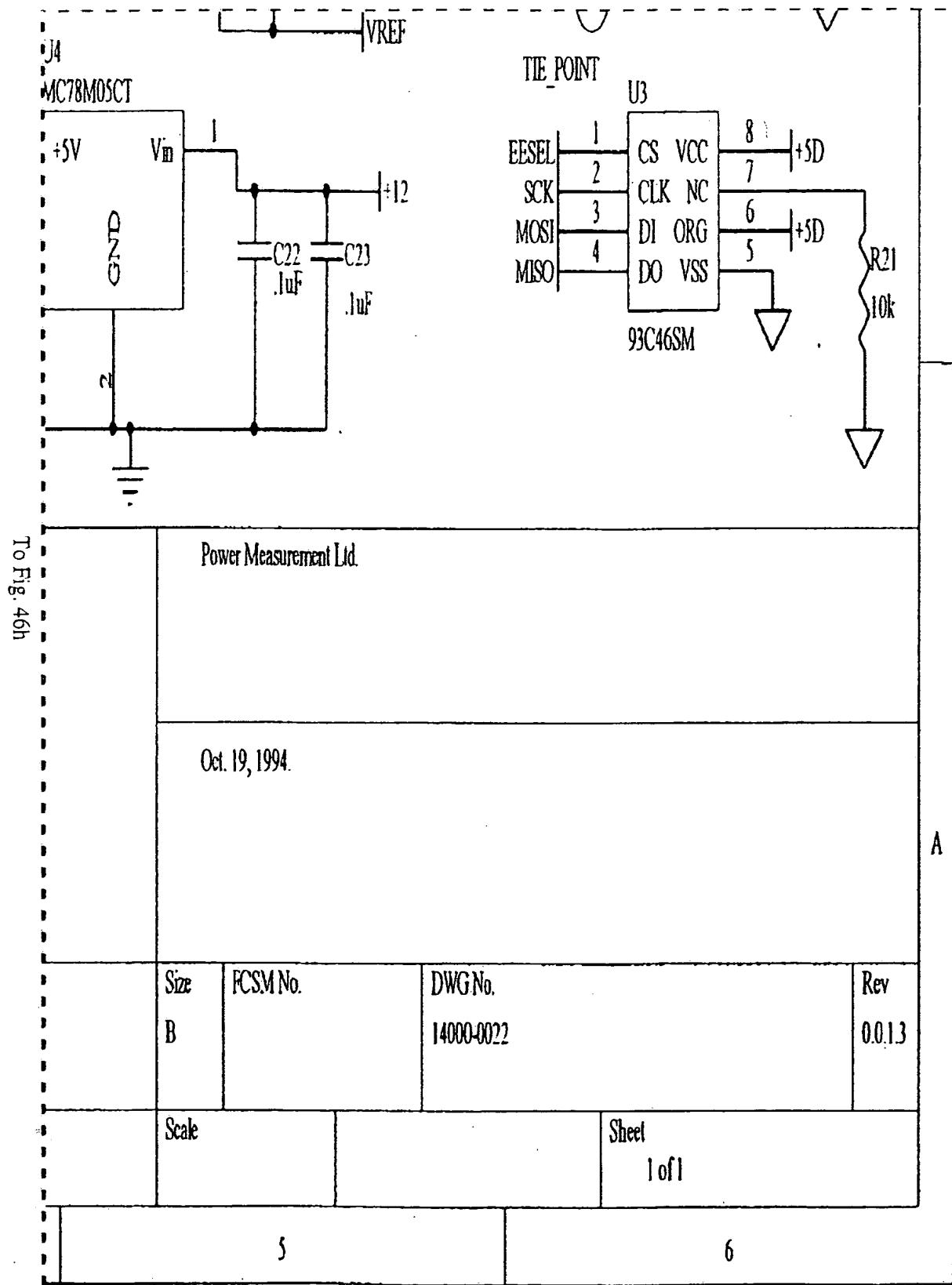


FIG. 46i